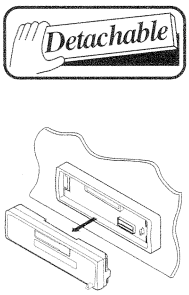
JVC

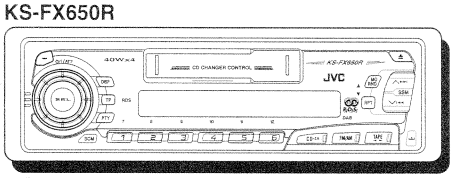
SERVICE MANUAL

CASSETTE RECEIVER

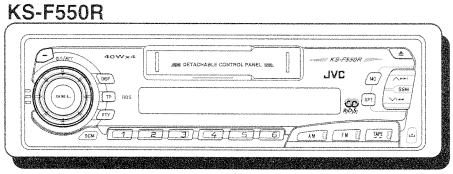
KS-FX650R
KS-F550R



KS-FX650R



KS-F550R



■Feature Check List

Features \ Model	KS-F550R	KS-FX650R
Changer Control	—	○

Area Suffix

E ..... Continental Europe

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No.49547
Mar. 2000

Safety Precaution

⚠ *CAUTION* **Burrs formed during molding may be left over on some parts of the chassis. Therefore, pay attention to such burrs in the case of preforming repair of this system.**

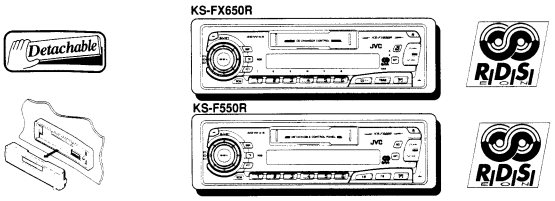
Instructions

JVC

ENGLISH
DEUTSCH
FRANÇAIS
NEDERLANDS

CASSETTE RECEIVER
CASSETTEN-RECEIVER
RADIOCASSETTE
RADIO/CASSETTESPELER

KS-FX650R/KS-F550R



Having TROUBLE with operation?
Please reset your unit
Refer to page of How to reset your unit

Haben Sie PROBLEME mit dem Betrieb?
Bitte setzen Sie Ihr Gerät zurück
Siehe Seite Zurücksetzen des Geräts

Vous avez des PROBLEMES de fonctionnement?
Réinitialisez votre appareil
Référez-vous à la page ^ntitulée Comment réinitialiser votre appareil

Hebt u PROBLEMEN met de bediening?
Stel het apparaat terug
Zie de pagina met de paragraaf Het apparaat terugsiellen

For installation and connections, refer to the separate manual.
Für den Einbau und die Anschlüsse siehe das eigenständige Handbuch.
Pour l'installation et les raccordements, se référer au manuel séparé.
Bijzonderheden over de installatie en aansluiting van het apparaat vindt u in de desbetreffende handleiding.

INSTRUCTIONS
BEDIENUNGSANLEITUNG
MANUEL D'INSTRUCTIONS
GEBRUIKSAANWIJZING

JVC
VICTOR COMPANY OF JAPAN, LIMITED

FSUN3109-311
[E]

EN, GE, FR, NL

1299HISFLEJES

Thank you for purchasing a JVC product. Please read all instructions carefully before operation, to ensure your complete understanding and to obtain the best possible performance from the unit.

ENGLISH

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Note:
For security reasons, a numbered ID card is provided with this unit, and the same ID number is imprinted on the unit's chassis. Keep the card in a safe place, as it will help the authorities to identify your unit if stolen.

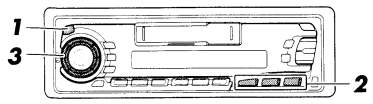
BEFORE USE

**** For safety....***
- *Do not raise the volume level too much, as this will block outside sounds, making driving dangerous.*
- *Stop the car before performing any complicated operations.*

**** Temperature inside the car....***
If you have parked the car for a long time in hot or cold weather, wait until the temperature in the car becomes normal before operating the unit.

ENGLISH

BASIC OPERATIONS



Note:
When you use this unit for the first time, set the built-in clock (see page 25).

1 ⏻/ATT

Turn on the power.

Note on One-Touch Operation:
When you select a source in step 2 below, the power automatically turns on. You do not have to press this button to turn on the power.

2 KS-FX650R

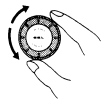
KS-F550R

Select the source.

To operate the tuner, see pages 5 – 16.
To operate the tape deck, see pages 17 – 20.

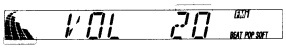
For KS-FX650R
To operate the CD changer, see pages 31 – 33.
To operate the external component, see pages 34
To operate the DAB tuner, see pages 35 – 39

3



Adjust the volume.

Volume level appears



Volume level indicator

4 Adjust the sound as you want (see pages 21 – 24).

To drop the volume in a moment

Press ⏻/ATT briefly while listening to any source. "ATT" starts flashing on the display, and the volume level will drop soon.
To resume the previous volume level, press the same button briefly again.

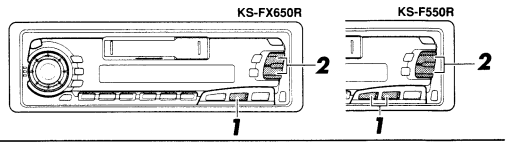
To turn off the power

Press ⏻/ATT for more than 1 second.

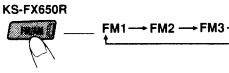
RADIO BASIC OPERATIONS

ENGLISH

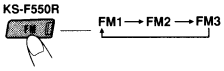
Listening to the radio



1 KS-FX650R



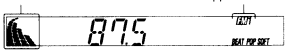
KS-F550R



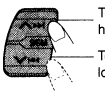
Select the band (FM1,FM2, FM3 or AM) you want.
You can select any one of FM1, FM2, and FM3 to listen to an FM station.

Audio (see page 28) or volume level indicator

Selected band appears



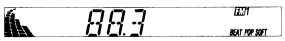
2



To search stations of higher frequencies.

To search stations of lower frequencies.

Start searching a station.
When a station is received, searching stops.



To stop searching before a station is received, press the same button you have pressed for searching.

To tune in a particular frequency without searching

1 Select the band (FM or AM).
For KS-FX650R: Press FM/AM repeatedly.
For KS-F550R: Press FM or AM.
2 Press and hold ∧►►I or ∨I◄◄ until "M" (for Manual) starts flashing on the display.
Now you can manually change the frequency while "M" is flashing.
3 Press ∧►►I or ∨I◄◄ repeatedly until the frequency you want is reached.
• If you hold down the button, the frequency keeps changing (in 50 kHz intervals for FM and 9kHz intervals for AM–MW/LW) until you release the button.

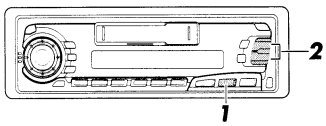
ENGLISH

Storing stations in memory

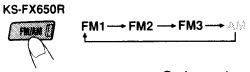
You can use one of the following two methods to store broadcasting stations in memory.
• Automatic preset of FM stations: SSM (Strong-station Sequential Memory)
• Manual preset of both FM and AM stations

FM station automatic preset: SSM

You can preset up to 6 local FM stations in each FM band (FM1, FM2, and FM3).



1 KS-FX650R

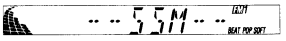


KS-F550R

Select the FM band number (FM1, FM2 or FM3) you want to store FM stations into.

2

Press and hold both buttons for more than 2 seconds.



"SSM" appears, then disappears when automatic preset is over.

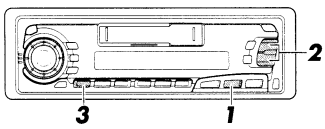
Local FM stations with the strongest signals are searched and stored automatically in the band number you have selected (FM1, FM2 or FM3). These stations are preset in the number buttons — No. 1 (lowest frequency) to No. 6 (highest frequency).
When automatic preset is over, the station stored in number button 1 will be automatically tuned in.

ENGLISH

Manual preset

You can preset up to 6 stations in each band (FM1, FM2, FM3 and AM) manually.

EXAMPLE: Storing an FM station of 88.3 MHz into preset number 1 of the FM1 band



1 KS-FX650R

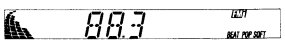
KS-F550R

Select the FM1 band.

2

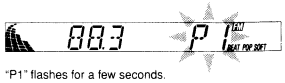
Tune into a station of 88.3 MHz.

See page 5 to tune into a station.



3

Press and hold the button for more than 2 seconds.



"P1" flashes for a few seconds.

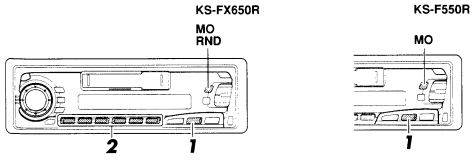
4 Repeat the above procedure to store other stations into other preset numbers.

Notes:
• *A previously preset station is erased when a new station is stored in the same preset number.*
• *Preset stations are erased when the power supply to the memory circuit is interrupted (for example, during battery replacement). If this occurs, preset the stations again.*

ENGLISH

Tuning into a preset station

You can easily tune into a preset station.
To do this, you must store stations first. If you have not stored them yet, see pages 6 and 7.



1 KS-FX650R

FM1 → FM2 → FM3 → AM

KS-F550R

FM1 → FM2 → FM3

AM

Select the band (FM1, FM2, FM3 or AM) you want.

2

Select the number (1 – 6) for the preset station you want.

When an FM stereo broadcast is hard to receive:
Press MO RND (mono/random: for KS-FX650R) or MO (mono: for KS-F550R) while listening to an FM stereo broadcast. The MONO (mono) indicator lights up on the display. The sound you hear becomes monaural but reception will be improved.
To restore the stereo effect, press the same button again.

Lights up when receiving an FM broadcast in stereo.

RDS OPERATIONS

ENGLISH

What you can do with RDS EON

RDS (Radio Data System) allows FM stations to send an additional signal along with their regular programme signals. For example, the stations send their station names, as well as information about what type of programme they broadcast, such as sports or music, etc.
Another advantage of RDS function is called "EON (Enhanced Other Networks)." The EON indicator lights up while receiving an FM station with the EON data. By using the EON data sent from a station, you can tune into a different station of a different network broadcasting your favorite programme or traffic announcement while listening to another programme or to another source such as Tape.

By receiving the RDS signals, this unit can do the following:
- Tracing the same programme automatically (Network-Tracking Reception)
- Standby Reception of TA (Traffic Announcement) or your favorite programme
- PTY (Programme Type) search
- TP (Traffic Programme) search
- And some other functions

Tracing the same programme automatically (Network-Tracking Reception)

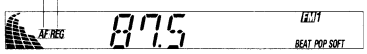
When driving in an area where FM reception is not good, the tuner built in this unit automatically tunes in another RDS station, broadcasting the same programme with stronger signals. So, you can continue to listen to the same programme in its finest reception, no matter where you drive. (See the illustration on the next page.)
Two types of the RDS data are used to make Network-Tracking Reception work correctly — PI (Programme Identification) and AF (Alternative Frequency).
Without receiving these data correctly from the RDS station you are listening to, Network-Tracking Reception will not operate.

RDS

To use Network-Tracking Reception, press and hold TP/RDS (Traffic Programme/Radio Data System) for more than 1 second. Each time you press and hold the button, Network-Tracking Reception modes change as follows:

→ Mode 1 → Mode 2 → Mode 3 →

AF indicator — REG indicator



ENGLISH

Mode 1

The AF indicator lights up but the REG indicator does not.
Network-Tracking is activated with Regionalization set to "off."
Switches to another station within the same network when the receiving signals from the current station become weak.

Note:
In this mode, the programme may differ from the one currently received.

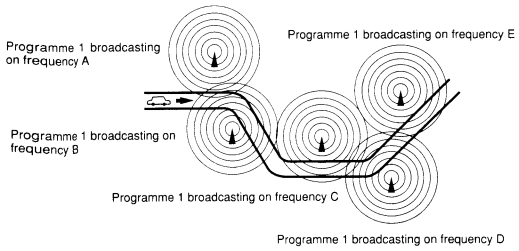
Mode 2

Both the AF indicator and the REG indicator light up.
Network-Tracking is activated with Regionalization set to "on."
Switches to another station, within the same network, broadcasting the same programme when the receiving signals from the current station become weak.

Mode 3

Neither the AF indicator nor the REG indicator lights up.
Network-Tracking is deactivated.

The same programme can be received on different frequencies.


Programme 1 broadcasting on frequency A
Programme 1 broadcasting on frequency E
Programme 1 broadcasting on frequency B
Programme 1 broadcasting on frequency C
Programme 1 broadcasting on frequency D

ENGLISH

Using Standby Reception

Standby Reception allows the unit to switch temporarily to your favorite programme (PTY: Programme Type) and Traffic Announcement (TA) from the current source (another FM station and TAPE (or CD Changer and other connected components for KS-FX650R)).

Note:
Standby Reception will not work if you are listening to an AM station.

TA Standby Reception

RDS

- When you press TP/RDS while listening to an FM station, the TP indicator is lit during reception of a TP (Traffic Programme) station and the TA standby mode is engaged.

Note:
When the station being received is not a TP station, the TP indicator flashes. Press ∧ ▶▶| or ∨ |◀◀ to engage the TA standby mode. "SEARCH" appears on the display, and TP station search starts. When a TP station is tuned in, the TP indicator is lit.

- If you are listening to TAPE (or CD Changer for KS-FX650R), and wish to listen to a TP station, press TP/RDS to enter the TA standby mode. (The TP indicator lights up.)

If a traffic programme starts broadcasting while the TA standby mode is active, "TRAFFIC" appears and the playback source changes to the FM band. The volume increases to the preset TA volume level and the traffic programme can be heard (see page 16).

To deactivate the TA standby mode, press TP/RDS again.

PTY Standby Reception

PTY

- When you press PTY while listening to an FM station, the PTY indicator is lit during reception of a PTY station and the PTY standby mode is engaged. The selected PTY name stored on page 12 flashes for 5 seconds.

Note:
When the station being received is not a PTY station, the PTY indicator flashes. Press ∧ ▶▶| or ∨ |◀◀ to engage the PTY standby mode. "SEARCH" appears on the display, and PTY station search starts. When a PTY station is tuned in, the PTY indicator is lit.

- If you are listening to TAPE (or CD Changer for KS-FX650R), and wish to listen to a selected PTY broadcast, press PTY to enter the PTY standby mode. (The PTY indicator lights up.)

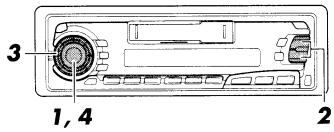
If the selected PTY programme starts broadcasting while the PTY standby mode is active, the selected PTY name appears and the playback source changes to the FM band. The selected PTY programme can then be heard.

To deactivate the PTY standby mode, press PTY again.

ENGLISH

Selecting Your Favorite Programme for PTY Standby Reception

You can select your favorite programme for PTY Standby Reception to store in memory.
When shipped from the factory, "NEWS" is stored as the programme type for PTY Standby Reception.



1 Press and hold SEL (Select) for more than 2 seconds to enter the general settings mode (see page 26).

2 Select "PTY STBY (Standby)" if not shown on the display.

3 Select one of twenty-nine PTY codes. (See the table on page 15.)
Selected code name appears on the display and is stored into memory.

4 Finish the setting.

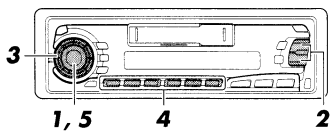
Searching Your Favorite Programme

You can search one of your 6 favorite programme types stored in memory.
When shipped from the factory, the following 6 programme types have been stored in the number buttons (1 to 6).
To change the factory preset settings, see page 13.
To search your favorite programme, see page 14.

1	2	3	4	5	6
POP M	ROCK M	EASY M	CLASSICS	AFFAIRS	VARIED

ENGLISH

To store your favorite programme types



1 Press and hold SEL (Select) for more than 2 seconds to enter the general settings mode (see page 26).

2 Select "PTY SRCH (Search)" if not shown on the display.

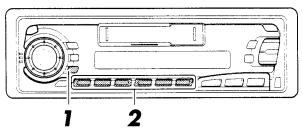
3 Select one of twenty-nine PTY codes. (See the table on page 15.)
Selected code name appears on the display.
- If the code already stored in memory is selected, it will flash on the display.

4 Press and hold the number button for more than 2 seconds to store the PTY code selected into the preset number you want.
The selected code name will flash on the display.

5 Finish the setting.

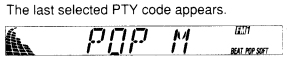
ENGLISH

To search your favorite programme type



1 Press and hold PTY (Programme Type) for more than 1 second while listening to an FM station.

The last selected PTY code appears.



2 Select one of the PTY codes stored in the preset number buttons (1 – 6).

Ex. When "ROCK M" is stored in the preset number button 2

PTY search for your favorite programme starts after 5 seconds.

- If there is a station broadcasting a programme of the same PTY code you selected, that station is tuned in.
- If there is no station broadcasting a programme of the same PTY code you selected, the station will not change.

Note:
In some areas, the PTY search will not work correctly.

ENGLISH

Other convenient RDS functions and adjustments

Automatic selection of the station when using the number buttons

Usually when you press the number button, the preset station is tuned in.
However, when the preset station is an RDS station, something different will happen. If the signals from that preset station are not sufficient for good reception, this unit, using the AF data, tunes in another frequency broadcasting the same programme as the original preset station is broadcasting. In case no other station is tuned in, you can also search all receivable frequencies for the same programme. (Programme search) To activate programme search, follow the procedure below.
- Programme search takes a while.
- See also "Changing the general settings" on page 26.

1. Press and hold SEL (select) for more than 2 seconds to call up the general setting mode.
2. Press ∧ ▶▶| or ∨ |◀◀ to select "P(programme)-SEARCH."
3. Select "ON" by turning the control dial clockwise.
   Now programme search is activated.

To cancel programme search, repeat the same procedure and select "OFF" in step 3 by turning the control dial counterclockwise.

PTY codes

NEWS:	News		
AFFAIRS:	Topical programmes expanding on current news or affairs	SOCIAL:	Programmes on social activities
INFO:	Programmes which impart advice on a wide variety of topics	RELIGION:	Programmes dealing with any aspect of belief or faith, or the nature of existence or ethics
SPORT:	Sport events	PHONE IN:	Programmes where people can express their views either by phone or in a public forum
EDUCATE:	Educational programmes		
DRAMA:	Radio plays	TRAVEL:	Programmes about travel destinations, package tours, and travel ideas and opportunities
CULTURE:	Programmes on national or regional culture		
SCIENCE:	Programmes on natural science and technology	LEISURE:	Programmes concerned with recreational activities such as gardening, cooking, fishing, etc.
VARIED:	Other programmes like comedies or ceremonies		
POP M:	Pop music	JAZZ:	Jazz music
ROCK M:	Rock music	COUNTRY:	Country music
EASY M:	Easy-listening music	NATION M:	Current popular music from another nation or region, in that country's language
LIGHT M:	Light music		
CLASSICS:	Classical music	OLDIES:	Classic pop music
OTHER M:	Other music	FOLK M:	Folk music
WEATHER:	Weather information	DOCUMENT:	Programmes dealing with factual matters, presented in an investigative style
FINANCE:	Reports on commerce, trading, the Stock Market, etc.		
CHILDREN:	Entertainment programmes for children		

ENGLISH

Changing the display mode while listening to an FM station

You can change the initial indication on the display to station frequency, station name (PS NAME), station frequency (FREQ) or clock time while listening to an FM RDS station.
• See also "Changing the general settings" on page 26.

1. Press and hold SEL (select) for more than 2 seconds to call up the general settings mode.
2. Select "DISPMODE" with ∧ ▶▶I or ∨ I◀◀.
3. Use the control dial to select the desired indication from the following: PS NAME (station name), FREQ (station frequency), and CLOCK (clock time).

Note:
By pressing DISP, you can also change the display while listening to an FM RDS station. Each time you press the button, the following information appears on the display:

PS NAME (Station name) → FREQ (Station frequency) → PTY (Programme type) → CLOCK (Clock time) → (repeats)

** The display returns to the initially preset mode after a short while.*

Setting the TA volume level

You can preset the volume level for TA Standby Reception. When a traffic programme is received, the volume level automatically changes to the preset level.
• See also "Changing the general settings" on page 26.

1. Press and hold SEL (select) for more than 2 seconds to call up the general setting mode.
2. Press ∧ ▶▶I or ∨ I◀◀ to select "TA VOL (volume)."
3. Set to the desired volume level with the control dial.

Automatic clock adjustment

When shipped from the factory, the clock built in this unit is set to be readjusted automatically using the CT (Clock Time) data in the RDS signal.
If you do not want to use automatic clock adjustment, follow the procedure below.
• See also "Changing the general settings" on page 26.

1. Press and hold SEL (select) for more than 2 seconds to call up the general setting mode.
2. Press ∧ ▶▶I or ∨ I◀◀ to select "AUTO ADJ (adjust)."
3. Select "ADJ OFF" by turning the control dial counterclockwise.
   Now automatic clock adjustment is canceled.

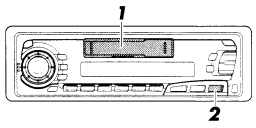
To reactivate clock adjustment, repeat the same procedure and select "ADJ ON" in step 3 by turning the control dial clockwise.

Note:
It takes about 2 minutes to adjust the time using the CT data. So, you must tune to the station for more than 2 minutes continuously; otherwise, the clock time will not be adjusted.

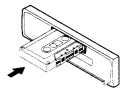
TAPE OPERATIONS

ENGLISH

Listening to a tape



1



Insert a cassette.
The unit turns on and tape play starts automatically.
When one side of the tape reaches its end during play, the other side of the tape automatically starts playing. (Auto Reverse)

Note on One-Touch Operation:
When a cassette is already in the cassette compartment, pressing TAPE ◄ ►turns on the unit and starts tape play automatically.

2

Select the tape direction.
Each time you press the button, the tape direction changes alternately – forward (TAPE : : :) and reverse (TAPE : : :).

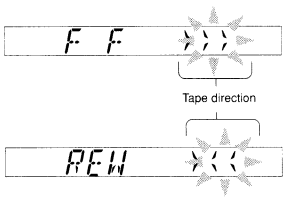
To stop play and eject the cassette

Press ⏏.
Tape play stops and the cassette automatically ejects from the cassette compartment.
If you change the source to FM/AM (or CD Changer for KS-FX650R), the tape play also stops (without ejecting the cassette this time).
• *You can also eject the tape with the unit turned off.*

ENGLISH

To fast-forward and rewind a tape

• Press ∧ ▶▶I for more than 1 second to fast-forward the tape.
  When the tape reaches its end, the tape is reversed and playback starts from the beginning of the other side.
• Press ∨ I◀◀ for more than 1 second to rewind the tape.
  When the tape reaches its end, playback of the same side starts.

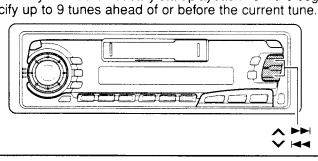


To stop fast-forward and rewind at any position on the tape, press TAPE ◄ ►.
Tape play starts from that position on the tape.

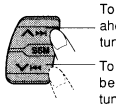
ENGLISH

Finding the beginning of a tune

Multi Music Scan allows you to automatically start playback from the beginning of a specified tune. You can specify up to 9 tunes ahead of or before the current tune.

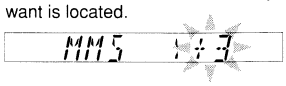


During playback



To locate a tune ahead of the current tune on the tape.
To locate a tune before the current tune on the tape.

Specify how many tunes ahead of or before the current tune the tune you want is located.



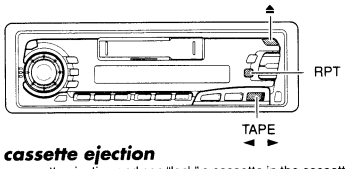
Each time you set the tune, the number changes up to ±9.

When the beginning of the specified tune is located, playback starts automatically.

Notes:
• *While locating a specified tune:*
  – *If the tape is rewound to its beginning, playback starts from the beginning of that side.*
  – *If the tape is fast forwarded to the end, it is reversed and played from the beginning of the other side.*
• *In the following cases, the Multi Music Scan function may not operate correctly:*
  – *Tapes with tunes having long pianissimo passages (very quiet parts) or non-recorded portions between tunes.*
  – *Tapes with short non-recorded sections.*
  – *Tapes with high level of noise or humming between tunes.*

ENGLISH

Other convenient tape functions



Prohibiting cassette ejection

You can prohibit the cassette ejection and can "lock" a cassette in the cassette compartment. Press and hold TAPE ◄► and ▲ for more than 2 seconds. "NO EJECT" flashes on the display for about 5 seconds, and the cassette is "locked".
To cancel the prohibition and "unlock" the cassette, press and hold TAPE ◄► and ▲ for more than 2 seconds again. "EJECT OK" flashes again for about 5 seconds, and this time the cassette is "unlock".

Skipping the blank portions on the tape

You can skip blank portions between the tunes. (Blank Skip)
When this function is on, the unit skips blank portions of 15 seconds or more, fast-forwards to the next tune, then starts playing it.
• See also "Changing the general settings" on page 26.

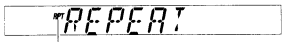
1. Press and hold SEL (select) for more than 2 seconds to call up the general settings mode.
2. Select "B.SKIP (blank skip)" with ^ ►►I or v I◄◄.
3. Select the desired mode with the control dial.
   The Blank Skip mode alternates between on and off.

Note:
When the tape reaches its end while fast-forwarding, the tape direction will be changed automatically.

Playing the current tune repeatedly

You can play the current tune repeatedly. (Repeat Play)

Each time you briefly press RPT while playing a tape, Repeat Play turns on and off alternately.



Lights up when Repeat Play is turned on

Press the RPT button while a tune you would like to hear over again is being played back. When the tape reaches the end of the tune, the tape is automatically rewound to the beginning of that tune and playback resumes from there. This operation will be repeated till the RPT button is pressed again.

Notes:
- *In the following cases, Blank Skip and Repeat Play may not operate correctly:*
  - *Tapes with tunes having long pianissimo passages (very quiet parts) or non-recorded portions during tunes.*
  - *Tapes with short non-recorded sections.*
  - *Tapes with high level noise or humming between tunes.*
  - *Tapes with tunes recorded at low recording levels.*

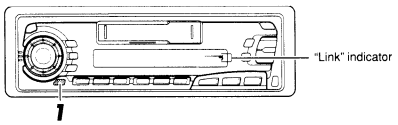
ENGLISH

Using the Sound Control Memory

You can select and store a preset sound adjustment suitable to each playback source.
(Advanced SCM)

Selecting and storing the sound modes

Once you select a sound mode, it is stored in memory, and will be recalled every time you select the same source. A sound mode can be stored for each of the following sources — FM1, FM2, FM3, AM, TAPE and CD Changer (and external components: ONLY FOR KS-FX650R).
- If you do not want to store the sound mode separately for each playback source, but want to use the same sound mode for all the sources, see "Canceling Advanced SCM" on page 27.



1

Select the sound mode you want.
Each time you press the button, the sound mode changes as follows:

→SCM OFF→BEAT→POP→SOFT

- If the "Link" indicator is lit on the display (with "SCM LINK" set to "LINK ON"—see page 27), the selected sound mode can be stored in memory for the current source, and the effect applies to the current source.
- If the "Link" indicator is NOT lit on the display (with "SCM LINK" set to "LINK OFF", the selected sound mode effect applies to any source.

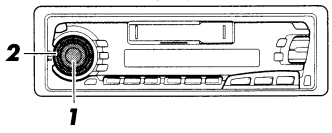
Indication	For:	Range		
		Bass	Treble	Loudness
SCM OFF	(Flat sound)	00	00	On
BEAT	Rock or disco music	+02	00	On
POP	Light music	+04	+01	Off
SOFT	Quiet background music	+01	–03	Off

SOUND ADJUSTMENTS

ENGLISH

Adjusting the sound

You can adjust the sound characteristics to your preference.



1

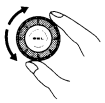
Select the item you want to adjust.

→BAS→TRE→FAD→BAL→LOUD→VOL

Indication	To do:	Range
BAS (Bass)	Adjust the bass	–06 (min.) — +06 (max.)
TRE (Treble)	Adjust the treble	–06 (min.) — +06 (max.)
FAD (Fader)*	Adjust the front and rear speaker balance	R06 (rear only) — F06 (front only)
BAL (Balance)	Adjust the left and right speaker balance	L06 (left only) — R06 (right only)
LOUD (Loudness)	Boost low and high frequencies to produce a well-balanced sound at low volume level.	ON — OFF
VOL (Volume)	Adjust the volume	00 (min.) — 50 (max.)

Note:
* *If you are using a two-speaker system, set the fader level to "00".*

2

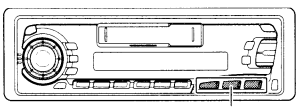


Adjust the level.

Note:
Normally the control dial works as the volume control. So you do not have to select "VOL" to adjust the volume level.

ENGLISH

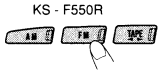
Recalling the sound modes



Source buttons

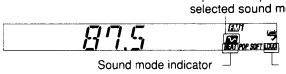
KS - FX650R

KS - F550R



Select the source while the "Link" indicator is lit on the display.
The "Link" indicator starts flashing, and the sound mode stored in memory for the selected source is recalled.

Equalization pattern of the selected sound mode appears.



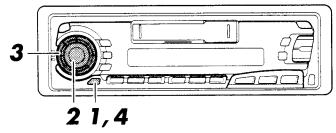
Sound mode indicator
Loud (loudness) indicator

Notes:
- *You can adjust each sound mode to your preference, and store it in memory.*
  If you want to adjust and store your original sound mode, see "Storing your own sound adjustments" on page 24.
- *To adjust the bass and treble reinforcement levels or to turn on/off the loudness function temporarily, see page 21. (Your adjustments will be canceled if another source is selected.)*

ENGLISH

Storing your own sound adjustments

You can adjust the sound modes (BEAT, POP, SOFT,: see page 22) to your preference and store your own adjustments in memory.



1 Call up the sound mode you want to adjust.
See page 22 for details.

Within 5 seconds

2 Select "BAS (Bass)," "TRE (Treble)" or "LOUD (Loudness)."

Within 5 seconds

3 Adjust the bass or treble level or turn the loudness function ON/OFF.
See page 21 for details.

Within 5 seconds

4 Press and hold SCM (Sound Control Memory) until the sound mode you have selected flashes on the display.
Your setting is stored in memory.

5 Repeat the same procedure to store other settings.

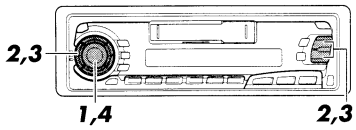
To reset to the factory settings

Repeat the same procedure and reassign the preset values listed in the table on page 22.

OTHER MAIN FUNCTIONS

ENGLISH

Setting the clock



1 Press and hold SEL for more than 2 seconds to call up the general settings mode.

2 Set the hour.
1 Select "CLOCK H" if not shown on the display.
2 Adjust the hour.

3 Set the minute.
1 Select "CLOCK M".
2 Adjust the minute.

4 Finish the setting.

To check the current clock time (changing the display mode)

Press DISP repeatedly. Each time you press the button, the display mode changes as follows:

During tuner operation:	During tape operation:	During external component operation (ONLY FOR KS-FX650R):
Clock ⟷ Frequency	Play mode ⟷ Clock	LINE IN ⟷ Clock
Note: *For the indication change during RDS operation, see page 16.*		

During CD changer operation (ONLY FOR KS-FX650R):
→ Clock → Elapsed playing time → Disc number →

Note:
For the indication change during DAB operation, see page 36.

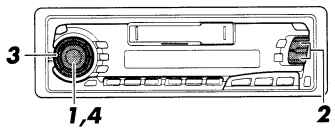
- If the unit is not in use when you press DISP, the power turns on, the clock time is shown for 5 seconds, then the power turns off.

ENGLISH

Changing the general settings

You can change the settings of the items listed on the next page.

Basic Procedure



1 Press and hold SEL for more than 2 seconds to call up the general settings mode.

2 Select the item you want to adjust (see page 27.)

3 Select or adjust the item selected above.

4 Finish the setting.

ENGLISH

1	2 Select.	3 Set.		Factory-preset settings	See page
CLOCK H	Hour adjustment	Back	Advance	0:00	25
CLOCK M	Minute adjustment	Back	Advance		
SCM LINK	Sound control memory linkage	LINK OFF	LINK ON	LINK ON	below
24H/12H	24/12-hour time display	12H	24H	24H	28
AUTO ADJ	Automatic setting of the clock	OFF	ON	ON	16
DISPMODE	Display mode	PS NAME ↔ FREQ ↳ CLOCK ↵		PS NAME	16
CH DISP	Changer display (ONLY FOR KS-FX650R)	TIME	DISC	DISC	28
PTY STBY	PTY standby	29 programmes types		NEWS	12
PTY SRCH	PTY search	(See page 15.)		(See pg 12.)	12-14
TA VOL	Traffic announcement volume	VOL (00 – 50)		VOL 20	11,16
P-SEARCH	Programme search	OFF	ON	OFF	15
LEVEL	Level display	AUDIO 1 ↔ AUDIO 2 ↳ OFF ↵		AUDIO 2	28
TEL	Audio mute for cellular phone system	OFF ↔ MUTING 1 ↳ MUTING 2 ↵		OFF	29
B.SKIP	Blank skip	OFF	ON	OFF	20
LINE IN*	External component (ONLY FOR KS-FX650R)	CHANGER	LINE IN	CHANGER	29

• Displayed only when one of the following sources is selected — FM, AM and TAPE.
• Press SEL (select) when the setting is complete.

Canceling Advanced SCM

You can cancel the Advanced SCM (Sound Control Memory), and unlink the sound modes and the playback sources.
When shipped from the factory, a different sound mode can be stored in memory for each source so that you can change the sound modes simply by changing the sources.
• LINK ON: Advanced SCM (different sound modes for different sources)
• LINK OFF: Conventional SCM (one sound mode for all sources)

1. Press and hold SEL (Select) for more than 2 seconds to call up the general settings mode.
2. Select "SCM LINK" with ∧ ▶▶| or ∨ |◀◀.
3. Select the desired mode with the control dial.
The SCM LINK mode changes as follows: **LINK ON ⟷ LINK OFF**

ENGLISH

Selecting 24-hour or 12-hour clock

You can change the clock built in this unit either to 24-hour system or 12-hour system.

1. Press and hold SEL (Select) for more than 2 seconds to call up the general settings mode.
2. Select "24H/12H" with ∧ ▶▶| or ∨ |◀◀.
3. Select "24H" or "12H" with the control dial.
   The clock alternates between 24-hour system and 12-hour system.

24H ⟷ 12H

Selecting the level display

You can select the level display according to your preference.
When shipped from the factory, "AUDIO 2" is selected.

- AUDIO 1: Shows the audio level indicator and the equalization pattern indicator.
- AUDIO 2: Alternates "AUDIO 1" setting and illumination display.
- OFF: Erases the audio level indicator and the equalization pattern indicator.

1. Press and hold SEL (Select) for more than 2 seconds to call up the general settings mode.
2. Select "LEVEL" with ∧ ▶▶| or ∨ |◀◀.
3. Select the desired mode with the control dial.
   The level display setting changes as follows:

AUDIO 1 ⟷ AUDIO 2 ⟷ OFF

Selecting the display mode while using the CD changer (ONLY FOR KS-FX650R)

You can change the initial indication on the display either to disc number or to elapsed playing time, while using the CD changer.

1. Press and hold SEL (Select) for more than 2 seconds to call up the general settings mode.
2. Select "CH DISP" with ∧ ▶▶| or ∨ |◀◀.
3. Select "DISC" or "TIME" with the control dial.

DISC ⟷ TIME

ENGLISH

Selecting the telephone muting

This mode is used when a cellular phone system is connected. Depending on the phone system used, select either "MUTING 1" or "MUTING 2", whichever mutes the sounds from this unit.
When shipped from the factory, this mode is deactivated.

- MUTING 1: Select this if this setting can mute the sounds.
- MUTING 2: Select this if this setting can mute the sounds.
- OFF: Cancels the telephone muting.

1. Press and hold SEL (Select) for more than 2 seconds to call up the general settings mode.
2. Select "TEL" with ∧ ▶▶| or ∨ |◀◀.
3. Select "MUTING 1", "MUTING 2" or "OFF" with the control dial.
   The telephone muting mode changes as follows:

MUTING 1 ⟷ MUTING 2 ⟷ OFF

Selecting the external component to use (ONLY FOR KS-FX650R)

You can connect the external component to the CD changer jack on the rear using the Line Input Adaptor KS-U57 (not supplied).
To use the external component as the playback source through this unit, you need to select which component — CD changer or external component — to use. When shipped from the factory, CD changer is selected as the external component.

- LINE IN: To use the extenal component other than CD changer
- CHANGER: To use the CD changer

1. To change the source to FM, AM or TAPE, press FM/AM or TAPE ◄ ►.
2. Press and hold SEL (Select) for more than 2 seconds to call up the general settings mode.
3. Select "LINE IN" with ∧ ▶▶| or ∨ |◀◀.
4. Select the desired mode with the control dial.
   The external component selecting mode changes as follows:

LINE IN ⟷ CHANGER

Note:
For connecting the Line Input Adaptor KS-U57 and the external component, refer to the Installation/ Connection Manual (separate volume).

ENGLISH

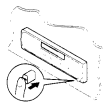
Detaching the control panel

You can detach the control panel when leaving the car.
When detaching or attaching the control panel, be careful not to damage the connectors on the back of the control panel and on the panel holder.

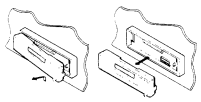
How to detach the control panel

Before detaching the control panel, be sure to turn off the power.

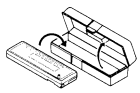
1 Unlock the control panel.



2 Lift and pull the control panel out of the unit.

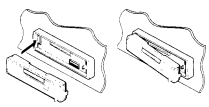


3 Put the detached control panel into the provided case.

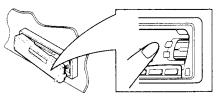


How to attach the control panel

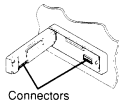
1 Insert the left side of the control panel into the groove on the panel holder.



2 Press the right side of the control panel to fix it to the panel holder.



Note on cleaning the connectors:
If you frequently detach the control panel, the connectors will deteriorate.
To minimize this possibility, periodically wipe the connectors with a cotton swab or cloth moistened with alcohol, being careful not to damage the connectors.



Connectors

ENGLISH

CD CHANGER OPERATIONS

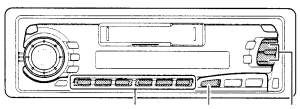
This section is ONLY FOR KS-FX650R.
We recommend that you use one of the CH-X series with your unit.
If you have another CD automatic changer, consult your JVC IN CAR ENTERTAINMENT dealer for connections.

- *For example, if your CD automatic changer is one of the KD-MK series, you need a cord (KS-U15K) for connecting it to this unit.*

Before operating your CD automatic changer:

- Refer also to the Instructions supplied with your CD changer.
- If no discs are in the magazine of the CD changer or the discs are inserted upside down, "NO CD" or "NO DISC" will appear on the display. If this happens, remove the magazine and set the discs correctly.
- If "RESET 1 - RESET 8" appears on the display, something is wrong with the connection between this unit and the CD changer. If this happens, check the connection, connect the connecting cord(s) firmly if necessary, then press the reset button of the CD changer.

Playing CDs



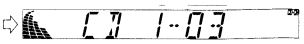
Number buttons CD-CH ∧ ▶▶| ∨ |◀◀

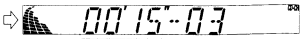
Select the CD automatic changer.

Playback starts from the first track of the first disc.
All tracks of all discs in the magazine are played back.

- "DISC" or "TIME" can be selected in the general settings mode (See page 26).

Disc number Track number

When "DISC" is selected ⇨ 

When "TIME" is selected ⇨ 

Elapsed playing time

Note on One-Touch Operation:
When you press CD-CH, the power automatically turns on. You do not have to press ⏻/ATT to turn on the power.

ENGLISH

To fast-forward or reverse the track

Press and hold ∧ ►►I, while playing a CD, to fast-forward the track.

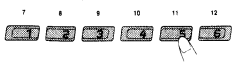
Press and hold ∨ I◄◄, while playing a CD, to reverse the track.

To go to the next track or the previous track

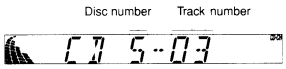
Press ∧ ►►I briefly, while playing a CD, to go ahead to the beginning of the next track. Each time you press the button, the beginning of the next tracks is located and played back.

Press ∨ I◄◄ briefly, while playing a CD, to go back to the beginning of the current track. Each time you press the button, the beginning of the previous tracks is located and played back.

To go to a particular disc directly using the number button



Ex. When disc number 5 is selected

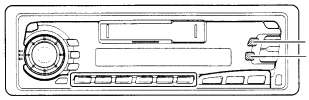


Press the number button corresponding to the disc number to start its playback (while the CD changer is playing).

- To select a disc number from 1 – 6:
  Press 1 (7) – 6 (12) briefly.
- To select a disc number from 7 – 12:
  Press and hold 1 (7) – 6 (12) for more than 1 second.

ENGLISH

Selecting CD playback modes



To play back tracks at random (Random Play)

Each time you press MO RND (Monaural/Random) while playing a CD, CD random play mode changes as follows:

→ **RND1** (Random1) → **RND2** (Random2) → **Canceled** →

Mode	RND Indicator	Plays at random
RND1	Lights	All tracks of the current disc, then the tracks of the next disc, and so on.
RND2	Flashes	All tracks of all discs inserted in the magazine.

To play back tracks repeatedly (Repeat Play)

Each time you press RPT (Repeat) while playing a CD, CD repeat play mode changes as follows:

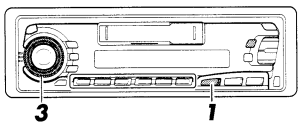
→ **RPT1** (Repeat1) → **RPT2** (Repeat2) → **Canceled** →

Mode	RPT Indicator	Plays repeatedly
RPT1	Lights	The current track (or specified track).
RPT2	Flashes	All tracks of the current disc (or specified disc).

ENGLISH

EXTERNAL COMPONENT OPERATIONS

This section is ONLY FOR KS-FX650R.
You can connect the external component to the CD changer jack on the rear using the Line Input Adaptor KS-U57 (not supplied).



Preparations:

- *For connecting the Line Input Adaptor KS-U57 and the external component, refer to the Installation/ Connection Manual (separate volume).*
- *Before operating the external component using the following procedure, select the external input correctly. (See "Selecting the external component to use" on page 29.)*

1

Select the external component.

- If "LINE IN"* does not appear on the display, see page 29 and select the external input ("LINE IN").

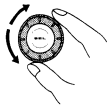
* *Displayed only when one of the following sources is selected — FM, AM and TAPE ◄ ►.*

Note on One-Touch Operation:
When you press CD-CH, the power automatically comes on. You do not have to press ⏻/ATT *to turn on the power.*

2

Turn on the connected component and start playing the source.

3



Adjust the volume.

ENGLISH

DAB TUNER OPERATIONS DAB

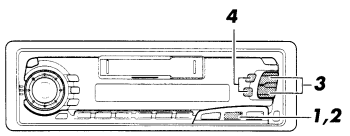
This section is ONLY FOR KS-FX650R, when used with a JVC DAB (Digital Audio Broadcasting) tuner (separately purchased). We recommend that you use DAB tuner KT-DB1500 with your unit.
If you have another DAB tuner, consult your JVC IN-CAR ENTERTAINMENT dealer.

- Refer also to the Instructions supplied with your DAB tuner.

What is DAB system?
DAB is one of the digital radio broadcasting systems available today. It can deliver CD quality sound without any annoying interference and signal distortion. Furthermore, it can carry text, pictures and data.
In contrast to FM broadcast, where each programme is transmitted on its own frequency, DAB combines several programmes (called "services") to form one "ensemble".
With the DAB tuner connected with this unit, you can enjoy these DAB services.

Tuning into an ensemble and one of the services

A typical ensemble has 6 or more programmes (services) broadcast at the same time. After tuning into an ensemble, you can select a service you want to listen to.



Before you start....
Press FM/AM/DAB briefly if you are selecting TAPE, CD changer or LINE IN as the source.

1

Select the DAB tuner.
Each time you press and hold the button for more than 1 second, the DAB tuner and the FM/AM tuner are alternately selected.

DAB ↔ FM/AM

2

Select the DAB band (DAB1, DAB2, or DAB3).
You can select any one of DAB1, DAB2, and DAB3 to tune into an ensemble.

→ **DAB 1** → **DAB 2** → **DAB 3** →

ENGLISH

3

To search ensembles of higher frequencies.
To search ensembles of lower frequencies.

Start searching an ensemble.
When an ensemble is received, searching stops.

4

Select an service you want to listen to.

To stop searching before an ensemble is received, press the same button you have pressed for searching.

To change the display information while tuning into an ensemble

Normally service name is shown on the display.
By pressing DISP, you can also change the display while tuning into an ensemble.
Each time you press the button, the following information appears for a while on the display.

Clock time → Service name → Ensemble name → Band/Preset number ← Frequency ← Channel no.

To restore the FM/AM tuner

Press and hold FM/AM/DAB for more than 1 second again.

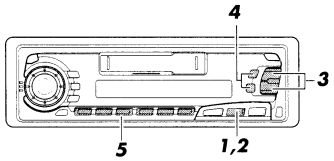
To tune in a particular ensemble without searching:

1 Press and hold FM/AM/DAB for more than 1 second.
2 Press FM/AM/DAB repeatedly to select the DAB band (DAB1, DAB2, or DAB3).
3 Press and hold ^ ▶▶| or v |◀◀ for more than 1 second.
4 Press ^ ▶▶| or v |◀◀ repeatedly until the ensemble you want is reached.
• If you hold down the button, the frequency keeps changing until you release the button.

ENGLISH

Storing DAB services in memory

You can preset up to 6 DAB services in each DAB band (DAB1, DAB2 and DAB3) manually.



1

Select the DAB tuner.
Each time you press and hold the button, the DAB tuner and the FM/AM tuner are alternately selected.

DAB ↔ FM/AM

2

Select the DAB band (DAB1, DAB2, or DAB3) you want.
Each time you press the button, the DAB band changes as follows:

DAB 1 → DAB 2 → DAB 3

3

Tune into an ensemble you want.

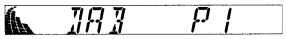
ENGLISH

4

Select a service of the ensemble you want.

5

Press and hold the number button (in this example, 1) for more than 2 seconds.



Band/preset number and service name flash alternately for a while.

6

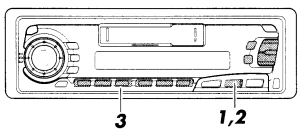
Repeat the above procedure to store other DAB services into other preset numbers.

Notes:
- *A previously preset DAB service is erased when a new DAB service is stored in the same preset number.*
- *Preset DAB services are erased when the power supply to the memory circuit is interrupted (for example, during battery replacement). If this occurs, preset the DAB services again.*

ENGLISH

Tuning into a preset DAB service

You can easily tune into a preset DAB service.
Remember that you must store services first. If you have not stored them yet, see pages 37 and 38.



1

Select the DAB tuner.
Each time you press and hold the button, the DAB tuner and the FM/AM tuner are alternately selected.

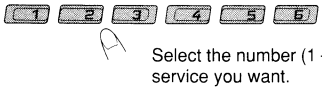
DAB ↔ FM/AM

2

Select the DAB band (DAB1, DAB2, or DAB3) you want.
Each time you press the button, the DAB band changes as follows:

DAB 1 → DAB 2 → DAB 3

3



Select the number (1 – 6) for the preset DAB service you want.

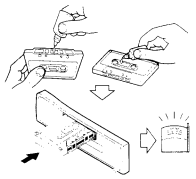
ENGLISH

MAINTENANCE

To extend the lifetime of the unit

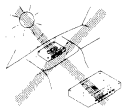
This unit requires very little attention, but you will be able to extend the life of the unit if you follow the instructions below.

To clean the heads



- Clean the heads after every 10 hours of use using a wet-type head cleaning tape (available at an audio store).
  When the head becomes dirty, you may realize the following symptoms:
  - Sound quality is reduced.
  - Sound level decreases.
  - Sound drops out.
- Do not play dirty or dusty tapes.
- Do not touch the highly-polished head with any metallic or magnetic tools.

To keep the tape clean



- Always store the tapes to their storage cases after use.
- Do not store tapes in the following places:
  - Subject to direct sunlight
  - With high humidity
  - At extremely hot temperatures

CAUTIONS:

- *Do not play the tapes with peeling labels; otherwise, they can damage the unit.*
- *Tighten tapes to remove slack since loose tape may become entangled with the mechanism.*
- *Do not leave a cassette in the cassette compartment after use, as the tape may become slack.*

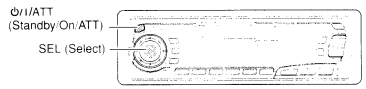
The function below is also provided to ensure the longer life of this unit.

Ignition key-off Release/Ignition key-on play

- When you turn off the ignition key with a cassette in the compartment, the unit automatically releases the tape from its head.
- When you turn on the ignition key with a cassette in the compartment, playback automatically starts.

How to reset your unit

Press and hold both the SEL (Select) and ⏻/I/ATT (Standby/On/ATT) buttons at the same time for several seconds.
This will reset the built-in microcomputer.
NOTE: Your preset adjustments — such as preset channels or sound adjustments — will also be erased.



TROUBLESHOOTING

What appears to be trouble is not always serious. Check the following points before calling a service center.

ENGLISH

Symptoms	Causes	Remedies
• A cassette tape cannot be inserted.	You have tried to insert a cassette in the wrong way.	Insert the cassette with the exposed tape facing right.
• Cassette tapes become hot.	This is not a malfunction.	———
• Tape sound is at very low level and sound quality is degraded.	The tape head is dirty.	Clean it with a head cleaning tape.
• Sound is sometimes interrupted.	Connections are not good.	Check the cords and connections.
• Sound cannot be heard from the speakers.	The volume control is turned to the minimum level.	Adjust it to the optimum level.
	Connections are incorrect.	Check the cords and connections.
• SSM (Strong-station Sequential Memory) automatic preset does not work.	Signals are too weak.	Store stations manually.
• Static noise while listening to the radio.	The antenna is not connected firmly.	Connect the antenna firmly.
• "NO CD" or "NO DISC" appears on the display.	No CD is in the magazine.	Insert CDs into the magazine.
	CDs are inserted incorrectly.	Insert them correctly.
• "RESET 8" appears on the display.	This unit is not connected to a CD changer correctly.	Connect this unit and the CD changer correctly and press the reset button of the CD changer.
• "RESET 1-RESET 7" appears on the display.	———	Press the reset button of the CD changer.
• The unit does not work at all. • The CD changer does not work at all.	The built-in microcomputer may function incorrectly due to noise, etc.	While holding SEL, press ⏻/I/ATT for more than 2 seconds to reset the unit. (The clock setting and preset stations stored in memory are erased.) (See page 40).

ENGLISH

SPECIFICATIONS

AUDIO AMPLIFIER SECTION

Maximum Power Output:
  Front: 40 W per channel
  Rear: 40 W per channel
Continuous Power Output (RMS):
  Front: 16 W per channel into 4 Ω, 40 Hz to 20,000 Hz at no more than 0.8% total harmonic distortion.
  Rear: 16 W per channel into 4 Ω, 40 Hz to 20,000 Hz at no more than 0.8% total harmonic distortion.
Load Impedance: 4 Ω (4 Ω to 8 Ω allowance)
Tone Control Range
  Bass: ±10 dB at 100 Hz
  Treble: ±10 dB at 10 kHz
Frequency Response: 40 Hz to 20,000 Hz
Signal-to-Noise Ratio: 70 dB
Line-Out Level/Impedance: 2.0 V/20 kΩ load (250n~Wb/m)

TUNER SECTION

Frequency Range
  FM: 87.5 MHz to 108.0 MHz
  AM: (MW) 522 kHz to 1,620 kHz
  (LW) 144 kHz to 279 kHz

[FM Tuner]
Usable Sensitivity: 11.3 dBf (1.0 μV/75 Ω)
50 dB Quieting Sensitivity:
  16.3 dBf (1.8 μV/75 Ω)
Alternate Channel Selectivity (400 kHz):
  65 dB
Frequency Response: 40 Hz to 15,000 Hz
Stereo Separation: 30 dB
Capture Ratio: 1.5 dB

[MW Tuner]
Sensitivity: 20 μV
Selectivity: 35 dB

[LW Tuner]
Sensitivity: 50 μV

CASSETTE DECK SECTION

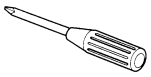
Wow & Flutter: 0.11% (WRMS)
Fast-Wind Time: 105sec (C-60)
Frequency Response:
30 to 16,000 Hz (Normal tape)
Signal-to-Noise Ratio: 56 dB
Stereo Separation: 40dB

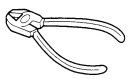
GENERAL

Power Requirement
Operating Voltage: DC 14.4 V (11 V to 16 V allowance)
Allowable Operational Temperature:
  0°C to +40°C
Grounding System: Negative ground
Dimensions (W × H × D)
  Installation Size:
    182 mm × 52 mm × 150 mm
  Panel Size: 188 mm × 58 mm × 14 mm
Mass: 1.4 kg (excluding accessories)

Design and specifications subject to change without notice.

JVC KS-FX650R KS-F550R





Installation/Connection Manual
Einbau/Anschlußanleitung
Manuel d'installation/raccordement

FSUN3109-T211
[E]

1299HISFLEJES
EN, GE, FR

ENGLISH

- This unit is designed to operate on 12 volts DC, NEGATIVE ground electrical systems.

INSTALLATION (IN-DASH MOUNTING)

- The following illustration shows a typical installation. However, you should make adjustments corresponding to your specific car. If you have any questions or require information regarding installation kits, consult your JVC car audio dealer or a company supplying kits.

1 **Before mounting:** Press ▲ (Control Panel Release button) to detach the control panel.
2 Remove the trim plate.
3 Remove the sleeve after disengaging the sleeve locks.
  ① Stand the unit.
  Note: When you stand the unit, be careful not to damage the fuse on the rear.
  ② Insert the 2 handles between the unit and the sleeve, as illustrated, to disengage the sleeve locks.
  ③ Remove the sleeve.
  Note: Be sure to keep the handles for future use after installing the unit.
4 Install the sleeve into the dashboard.
  * After the sleeve is correctly installed in the dashboard, bend the appropriate tabs to hold the sleeve firmly in place, as illustrated.
5 Fix the mounting bolt to the rear of the unit's body and place the rubber cushion over the end of the bolt.
6 Do the required electrical connections explained on the back of this instructions.
7 Slide the unit into the sleeve until it is locked.
8 Attach the trim plate so that the projection on the trim plate is fixed to the left side of the unit.
9 Attach the control panel.

DEUTSCH

- Dieses Gerät ist für einen Betrieb in elektrischen Anlagen mit 12 V Gleichstrom und (–) Erdung ausgelegt.

EINBAU (IM ARMATURENBRETT)

- Die folgende Abbildung zeigt einen typischen Einbau. Dennoch müssen Sie entsprechend Ihrem jeweiligen Auto Anpassungen vornehmen. Bei irgendwelchen Fragen oder wenn Sie Informationen hinsichtlich des Einbausatzes brauchen, wenden Sie sich an ihren JVC Autoradiohändler oder ein Unternehmen das diese Einbausätze vertreibt.

1 **Vor dem Einbau:** ▲ (Schalttafel-Freigabetaste) zum Lösen der Schalttafel drücken.
2 Den Frontrahmen herausnehmen.
3 Die Halterung nach dem Entriegeln der Halterungensperren abnehmen.
  ① Das Gerät aufstellen.
  Hinweis: Beim Aufstellen des Geräts darauf achten, daß die Sicherung auf der Rückseite nicht beschädigt wird.
  ② Die beiden Griffe zwischen dem Gerät und der Halterung wie abgebildet einstecken und die Halterungensperren entriegeln.
  ③ Die Halterung entfernen.
  Hinweis: Sicherstellen, daß die Griffe für künftigen Gebrauch nach dem Einbau des Geräts aufbewahrt werden.
4 Die Halterung im Armaturenbrett einbauen.
  * Nach dem korrekten Einbau der Halterung im Armaturenbrett, die entsprechenden Riegel umknicken, um die Halterung an ihrem Platz zu sichern, siehe Abbildung.
5 Die Befestigungsschraube an der Rückseite des Gerätekörpers befestigen und das Ende der Schraube mit einem Gummipuffer abdecken.
6 Nehmen Sie die erforderlichen elektrischen Anschlüsse vor.
7 Das Gerät in die Halterung schieben, bis es einrastet.
8 Befestigen Sie die Frontrahmen in der Form, daß der Fortsatz der Frontrahmen auf der linken Seite des Geräts befestigt wird.
9 Die Schalttafel anbringen.

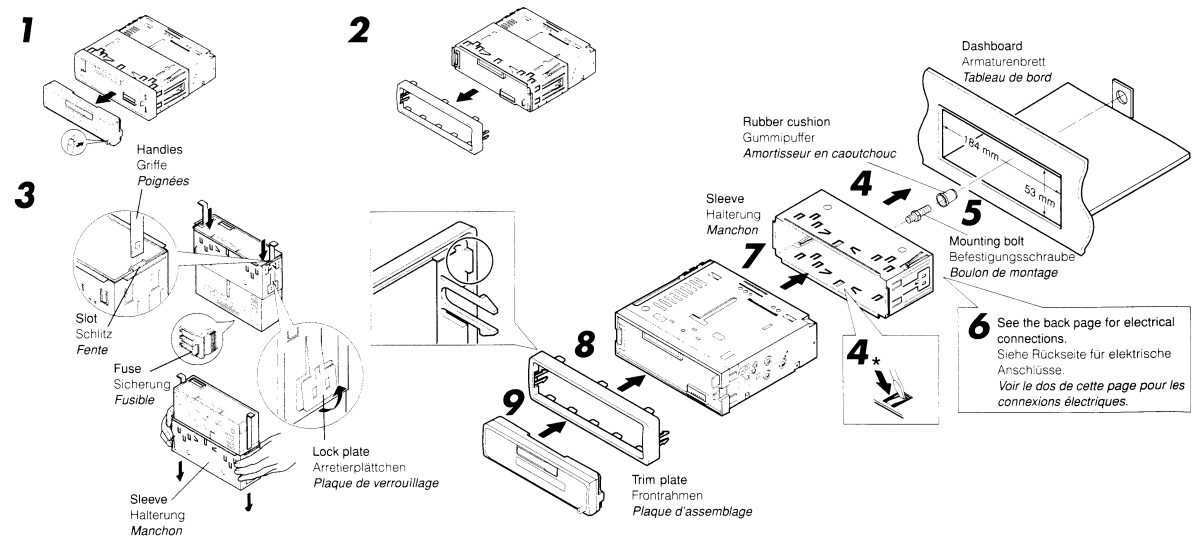
FRANÇAIS

- *Cet appareil est conçu pour fonctionner sur des sources de courant continu de 12 volts à masse NEGATIVE.*

INSTALLATION (MONTAGE DANS LE TABLEAU DE BORD)

- *L'illustration suivante est un exemple d'installation typique. Cependant, vous devez faire les ajustements correspondant à votre voiture particulière. Si vous avez des questions ou avez besoin d'information sur des kits d'installation, consulter votre revendeur d'autoradios JVC ou une compagnie d'approvisionnement.*

1 **Avant le montage:** *Appuyer sur ▲ (touche de libération du panneau de commande) pour détacher le panneau de commande.*
2 *Retirer la plaque d'assemblage.*
3 *Libérer les verrous du manchon et retirer le manchon.*
  ① *Poser l'appareil à la verticale.*
  Remarque: *Lorsque vous mettez l'appareil à la verticale, faire attention de ne pas endommager le fusible situé sur le fond.*
  ② *Insérer les 2 poignées entre l'appareil et le manchon comme indiqué pour désengagé les verrous de manchon.*
  ③ *Retirer le manchon.*
  Remarque: *S'assurer de garder les poignées pour une utilisation ultérieur, après l'installation de l'appareil.*
4 *Installer le manchon dans le tableau de bord.*
  * *Après installation correcte du manchon dans le tableau de bord, plier les bonnes pattes pour maintenir fermement le manchon en place, comme montré.*
5 *Monter le boulon de montage sur l'arrière du corps de l'appareil puis passer l'amortisseur en caoutchouc sur l'extrémité du boulon.*
6 *Réalisez les connexions électriques expliquées au dos de cette page.*
7 *Faire glisser l'appareil dans le manchon jusqu'à ce qu'il soit verrouillé.*
8 *Attachez la plaque d'ajustage de façon que la projection de la plaque soit fixée sur le cote gauche de l'appareil.*
9 *Remonter le panneau de commande.*



TROUBLESHOOTING

- **The fuse blows.**
  * Are the red and black leads connected correctly?
- **Power cannot be turned on.**
  * Is the yellow lead connected?
- **No sound from the speakers.**
  * Is the speaker output lead short-circuited?
- **Sound is distorted.**
  * Is the speaker output lead grounded?
  * Are the "–" terminals of L and R speakers grounded in common?
- **Unit becomes hot.**
  * Is the speaker output lead grounded?
  * Are the "–" terminals of L and R speakers grounded in common?

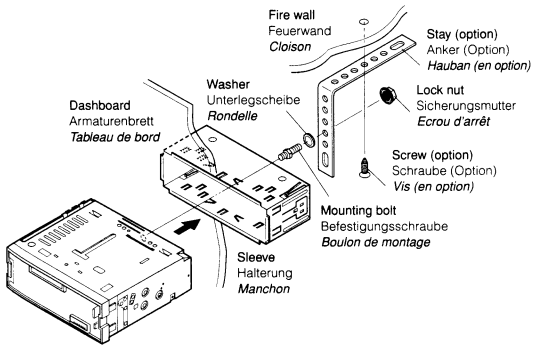
FEHLERSUCHE

- **Die Sicherung brennt durch.**
  * Sind die roten und schwarzen Leitungen richtig angeschlossen?
- **Stromversorgung kann nicht eingeschaltet werden.**
  * Ist die gelbe Leitung angeschlossen?
- **Kein Ton aus den Lautsprechern.**
  * Ist die Lautsprecherausgangsleitung kurzgeschlossen?
- **Ton verzerrt.**
  * Ist die Lautsprecherausgangsleitung geerdet?
  * Sind die (–) Anschlußklemmen der linken und rechten Lautsprecher zusammen geerdet?
- **Gerät wird heiß.**
  * Ist die Lautsprecherausgangsleitung geerdet?
  * Sind die (–) Anschlußklemmen der linken und rechten Lautsprecher zusammen geerdet?

EN CAS DE DIFFICULTÉS

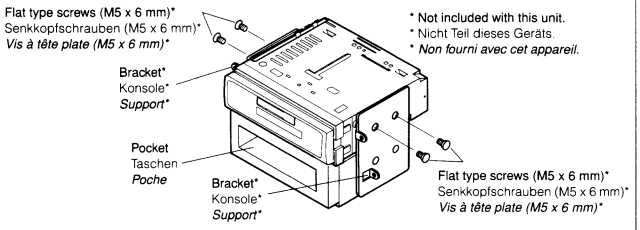
- **Le fusible saute.**
  * *Les fils rouge et noir sont-ils racordés correctement?*
- **L'appareil ne peut pas être mise sous tension.**
  * *Le fil jaune est-elle raccordée?*
- **Pas de son des haut-parleurs.**
  * *Le fil de sortie de haut-parleur est-il court-circuité?*
- **Le son est déformé.**
  * *Le fil de sortie de haut-parleur est-il à la masse?*
  * *Les bornes "–" des haut-parleurs gauche et droit sont-elles mises ensemble à la masse?*
- **L'appareil devient chaud.**
  * *Le fil de sortie de haut-parleur est-il à la masse?*
  * *Les bornes "–" des haut-parleurs gauche et droit sont-elles mises ensemble à la masse?*

• When using the optional stay
• Beim Verwenden der Anker-Option
• Lors de l'utilisation du hauban en option



• When installing the unit without using the sleeve
• Beim Einbau des Geräts ohne Halterung
• Lors de l'installation de l'appareil scans utiliser de manchon

In a Toyota for example, first remove the car radio and install the unit in its place.
Zum Beispiel in einem Toyota zuerst das Autoradio ausbauen und dann das Gerät an seinem Platz einbauen.
Par exemple dans une Toyota, retirer d'abord l'autoradio et installer l'appareil à la place.



Note: When installing the unit on the mounting bracket, make sure to use the 6 mm-long screws. If longer screws are used, they could damage the unit.
Hinweis: Beim Anbringen des Gerät an der Konsole sicherstellen, daß 6 mm lange Schrauben verwendet werden. Werden längere Schrauben verwendet, können sie das Gerät beschädigen.
Remarque: *Lors de l'installation de l'appareil sur le support de montage, s'assurer d'utiliser des vis d'une longueur de 6 mm. Si des vis plus longues sont utilisées, elles peuvent endommager l'appareil.*

Removing the unit

- Before removing the unit, release the rear section.

1 Remove the control panel.
2 Remove the trim plate.
3 Insert the 2 handles into the slots, as shown. Then, while gently pulling the handles away from each other, slide out the unit. **(Be sure to keep the handles after installing it.)**

Ausbau des Geräts

- Vor dem Ausbau des Geräts den hinteren Teil freigeben.

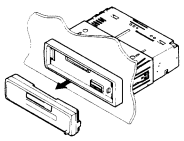
1 Die Schalttafel abnehmen.
2 Den Frontrahmen abnehmen.
3 Die 2 Griffe in die Schlitze wie gezeigt stecken. Dann die Griffe behutsam auseinander ziehen und das Gerät herausziehen. **(Die Griffe nach dem Einbau auf jeden Fall aufbewahren.)**

Retrait de l'appareil

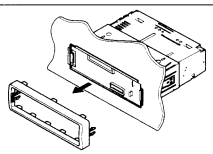
- *Avant de retirer l'appareil, libérer la section arrière.*

1 *Retirer le panneau de commande.*
2 *Retirer la plaque d'assemblage.*
3 *Introduire les deux poignées dans les fentes, comme montré. Puis, tout en tirant doucement les poignées écartées, faire glisser l'appareil pour le sortir.* **(S'assurer de conserver les poignées après l'installation de l'appareil.)**

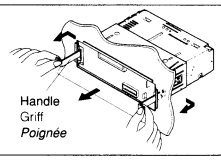
1



2



3



Parts list for installation and connection

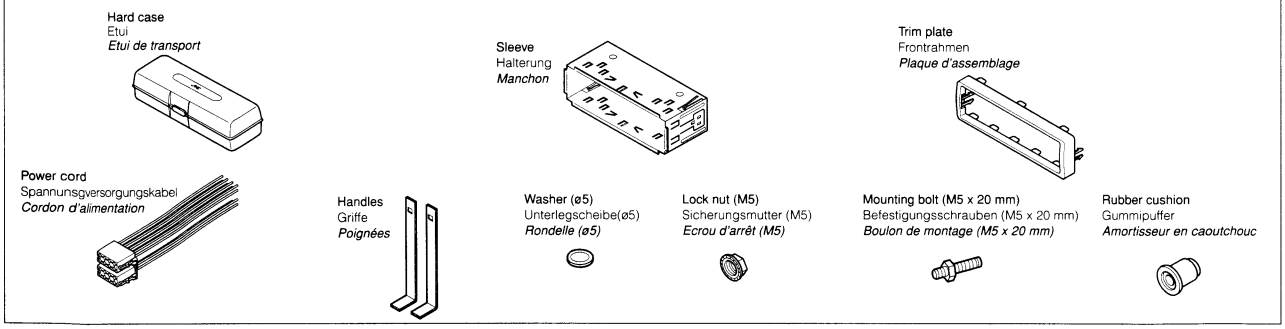
The following parts are provided with this unit.
After checking them, please set them correctly.

Teileliste für den Einbau und Anschluß

Die folgenden Teile werden zusammen mit diesem Gerät geliefert.
Nach ihrer Überprüfung, die Teile richtig einsetzen.

Liste des pièces pour l'installation et raccordement

Les pièces suivantes sont fournies avec cet appareil.
Après vérification, veuillez les placer correctement.



ENGLISH

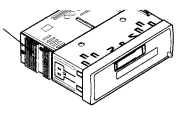
ELECTRICAL CONNECTIONS

To prevent short circuits, we recommend that you disconnect the battery's negative terminal and make all electrical connections before installing the unit. If you are not sure how to install this unit correctly, have it installed by a qualified technician.

Note:
This unit is designed to operate on **12 volts DC, NEGATIVE ground electrical systems**. If your vehicle does not have this system, a voltage inverter is required, which can be purchased at JVC IN-CAR ENTERTAINMENT dealers.

- Replace the fuse with one of the specified rating. If the fuse blows frequently, consult your JVC IN-CAR ENTERTAINMENT dealer.
- If noise is a problem...
  This unit incorporates a noise filter in the power circuit. However, with some vehicles, clicking or other unwanted noise may occur. If this happens, connect the unit's **rear ground terminal** (see connection diagram) to the car's chassis using shorter and thicker cords, such as copper braiding or gauge wire. If noise still persists, consult your JVC IN-CAR ENTERTAINMENT dealer.
- Maximum input of the speakers should be more than 40 watts at the rear and 40 watts at the front, with an impedance of **4 to 8 ohms**.
- **Be sure to ground this unit to the car's chassis.**
- The heat sink becomes very hot after use. Be careful not to touch it when removing this unit.

Heat sink
Abstrahlblech
Dissipateur de chaleur



DEUTSCH

ELEKTRISCHE ANSCHLÜSSE

Zur Vermeidung von Kurzschlüssen empfehlen wir, daß Sie den negativen Batterieanschluß abtrennen und alle elektrischen Anschlüsse herstellen, bevor das Gerät eingebaut wird. Sind Sie sich über den richtigen Einbau des Geräts nicht sicher, lassen Sie es von einem qualifizierten Techniker einbauen.

Hinweis:
Dieses Gerät ist für den Betrieb in **elektrischen Anlagen mit 12 V Gleichstrom und NEGATIVE Erdung** ausgelegt. Verfügt Ihr Fahrzeug nicht über diese Anlage, ist ein Spannungsinverter erforderlich, der bei JVC Autoradiohändler erworben werden kann.

- Die Sicherung mit einer der entsprechenden Nennleistung ersetzen. Brennt die Sicherung häufig durch, wenden Sie sich an ihren JVC Autoradiohändler.
- Sind Störgeräusche ein Problem...
  Dieses Gerät enthält ein Störfilter im Stromkreis. Bei manchen Fahrzeugen kann jedoch ein Klicken oder andere unerwünschte Störgeräusche auftreten. Sollte das der Fall sein, die **hintere Erdungscanschlußklemme** (siehe Schaltplan) des Geräts am Fahrwerk des Fahrzeugs anschließen, dabei kürzere und dickere Kabel wie beispielsweise Kupfergeflechtdraht oder Stahldraht verwenden. Bleibt Störgeräusch bestehen, wenden Sie sich an Ihren JVC Autoradiohändler.
- Maximale Eingangsleistung der Lautsprecher muß höher als 40 W hinten und 40 W vorne sein, mit einer Impedanz von **4 bis 8 Ohm.**
- **Sicherstellen, daß das Gerät am Fahrwerk geerdet wird.**
- Das Abstrahlblech wird nach dem Gebrauch sehr heiß. Beim Ausbau des Geräts darauf achten, das Abstrahlblech nicht zu berühren.

FRANÇAIS

RACCORDEMENTS ELECTRIQUES

Pour éviter tout court-circuit, nous vous recommandons de débrancher la borne négative de la batterie et d'effectuer tous les raccordements électriques avant d'installer l'appareil. Si l'on n'est pas sûr de pouvoir installer correctement cet appareil, le faire installer par un technicien qualifié.

Remarque:
Cet appareil est conçu pour fonctionner sur des sources de courant continu de **12 volts à masse NEGATIVE**. *Si votre véhicule n'offre pas ce type d'alimentation, il vous faut un convertisseur de tension, que vous pouvez acheter chez un revendeur d'autoradios JVC.*

- *Remplacer le fusible par un de la valeur précisée. Si le fusible saute souvent, consulter votre revendeur d'autoradios JVC.*
- *Si le bruit est un problème...*
  Cet appareil incorpore un filtre de bruit dans le circuit d'alimentation. Cependant, avec certains véhicules, quelques claquements ou autres bruits non désirés risquent de se produire. Si cela arrive, raccorder la **borne de masse arrière** *de l'appareil au châssis de la voiture (voir le schéma de raccordement) en utilisant des cordons les plus gros et les plus courts possibles telle qu'une barre de cuivre ou une tresse. Si le bruit persiste, consulter votre revendeur d'autoradios JVC.*
- *La puisscance admissible des haut-parleurs doit être supérieure à 40 watts à l'arrière et à 40 watts l'avant, avec une impédance de* **4 à 8 ohms**.
- **S'assurer de raccorder la mise à la masse de cet appareil au châssis de la voiture.**
- *Le radiateur devient très chaud après usage. Faire attention de ne pas le toucher en retirant cet appareil.*

A Typical Connections / Typische Anschlüsse / Raccordements typiques

Before connecting: Check the wiring in the vehicle carefully. Incorrect connection may cause serious damage to this unit.

1 Connect the colored leads of the power cord to the car battery, speakers and power aerial (if any) in the following sequence.

① Black: ground
② Yellow: to car battery (constant 12V)
③ Red: to an accessory terminal
④ Blue with white stripe: to power aerial (200mA max.)
⑤ Brown: to cellular phone system (For details, refer to the instructions of the cellular phone.)
⑥ Others: to speakers

2 Connect the aerial cord.

3 Finally connect the wiring harness to the unit.

Note: If your vehicle does not have any accessory terminal, move the fuse from the fuse position 1 (initial position) to fuse position 2, and connect the red lead (A7) to the positive (+) battery terminal.
• The yellow lead (A4) is not used in this case.

Vor dem Anschließen: Die Verdrahtung im Fahrzeug sorgfältig überprüfen. Falsche Anschlüsse können ernsthafte Schäden am Gerät hervorrufen.

1 Die farbigen Leitungen des Spannunsgversorgungskabels an der Autobatterie, den Lautsprechern und dem Motorantenne (sofern vorhanden) in folgender Reihenfolge anschließen.

① Schwarz: Erdung
② Gelb: an autobatterie (konstant 12 V)
③ Rot: an Zubehöranschlußklemme
④ Blau mit weißem Streifen: an Motorantenne (max. 200 mA)
⑤ Braun: an Mobiltelefon (Weitere informationen entnehmen Sie bitte der Bedienungscanleitung des Mobiltelefons.)
⑥ Andere: an Lautsprecher

2 Das Antennenkabel anschließen.

3 Die Kabelbäume am Gerät anschließen.

Hinweis: Verfügt Ihr Fahrzeug nicht über eine Zubehöranschlußklemme, die Sicherung von der 1. Sicherungsposition (Erstposition) in die 2. Sicherungsposition versetzen, die rote Leitung (A7) an der (+) Batterieanschlußklemme anschließen.
• Die gelbe Leitung (A4) wird in diesem Fall nicht verwendet.

Avant de commencer la connexion: *vérifiez attentivement le câblage du véhicule. Une connexion incorrecte peut endommager sérieusement l'appareil.*

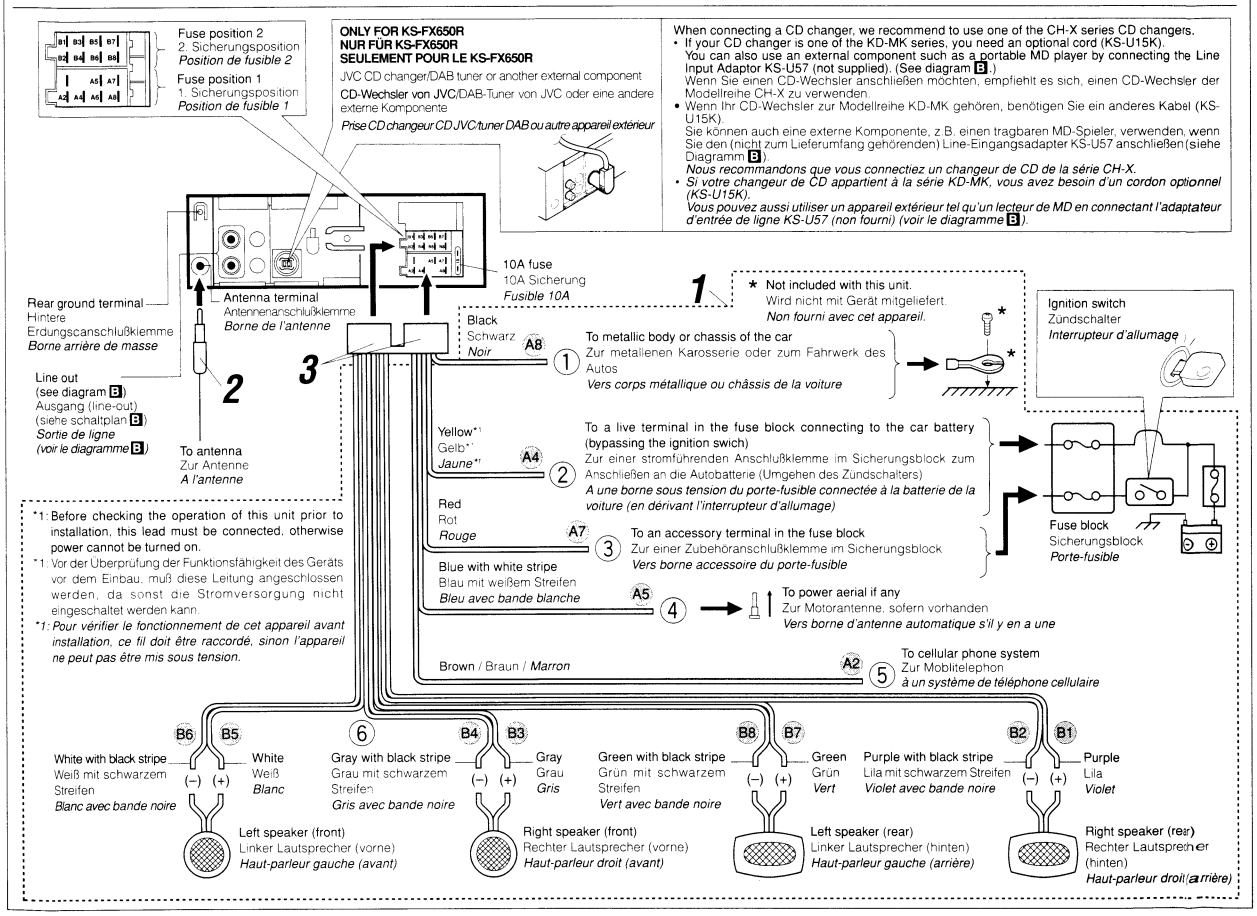
1 *Connectez les fils de couleur du cordon d'alimentation à la batterie de la voiture, aux enceintes et à l'antenne automatique (s'il y en a une) dans l'ordre suivant.*

① *Noir: a la masse*
② *Jaune: a la batterie de la voiture (12V constant)*
③ *Rouge: à la prise accessoire*
④ *Bleu à bandes blanches: à l'antenne automatique (200 mA max.)*
⑤ *Marron: à un système de téléphone cellulaire (Pour les détails, se référer aux instructions du téléphone cellulaire.)*
⑥ *Autres: aux enceintes*

2 *Connectez le cordon d'antenne.*

3 *Finalement, connectez le faisceau de fils à l'appareil.*

Remarque: *Si votre véhicule ne possède pas de borne accessoire, déplacez le fusible de la position de fusible 1 (position originale) à la position de fusible 2 et connectez le fil rouge (A7) à la borne positive (+) de la batterie.*
• *Le fil jaune (A4) n'est pas utilisé dans ce cas.*


Fuse position 2
2. Sicherungsposition
Position de fusible 2
Fuse position 1
1. Sicherungsposition
Position de fusible 1
ONLY FOR KS-FX650R
NUR FÜR KS-FX650R
SEULEMENT POUR LE KS-FX650R
JVC CD changer/DAB tuner or another external component
CD-Wechsler von JVC/DAB-Tuner von JVC oder eine andere externe Komponente
Prise CD changeur CD JVC/tuner DAB ou autre appareil extérieur
When connecting a CD changer, we recommend to use one of the CH-X series CD changers.
• If your CD changer is one of the KD-MK series, you need an optional cord (KS-U15K). You can also use an external component such as a portable MD player by connecting the Line Input Adaptor KS-U57 (not supplied). (See diagram B.)
Wenn Sie einen CD-Wechsler anschließen möchten, empfiehlt es sich, einen CD-Wechsler der Modellreihe CH-X zu verwenden.
• Wenn Ihr CD-Wechsler zur Modellreihe KD-MK gehören, benötigen Sie ein anderes Kabel (KS-U15K).
Sie können auch eine externe Komponente, z.B. einen tragbaren MD-Spieler, verwenden, wenn Sie den (nicht zum Lieferumfang gehörenden) Line-Eingangsadapter KS-U57 anschließen (siehe Diagramm B).
Nous recommandons que vous connectiez un changeur de CD de la série CH-X.
• Si votre changeur de CD appartient à la série KD-MK, vous avez besoin d'un cordon optionnel (KS-U15K).
Vous pouvez aussi utiliser un appareil extérieur tel qu'un lecteur de MD en connectant l'adaptateur d'entrée de ligne KS-U57 (non fourni) (voir le diagramme B).
10A fuse
10A Sicherung
Fusible 10A
Rear ground terminal
Hintere Erdungsanschlußklemme
Borne arrière de masse
Antenna terminal
Antennenanschlußklemme
Borne de l'antenne
Line out
(see diagram B)
Ausgang (line-out)
(siehe schaltplan B)
Sortie de ligne
(voir le diagramme B)
To antenna
Zur Antenne
A l'antenne
* Not included with this unit.
Wird nicht mit Gerät mitgeliefert.
Non fourni avec cet appareil.
Ignition switch
Zündschalter
Interrupteur d'allumage
Black
Schwarz
Noir
A8
To metallic body or chassis of the car
Zur metallenen Karosserie oder zum Fahrwerk des Autos
Vers corps métallique ou châssis de la voiture
Yellow*1
Gelb*1
Jaune*1
A4
To a live terminal in the fuse block connecting to the car battery (bypassing the ignition swich)
Zur einer stromführenden Anschlußklemme im Sicherungsblock zum Anschließen an die Autobatterie (Umgehen des Zündschalters)
A une borne sous tension du porte-fusible connectée à la batterie de la voiture (en dérivant l'interrupteur d'allumage)
Red
Rot
Rouge
A7
To an accessory terminal in the fuse block
Zur einer Zubehöranschlußklemme im Sicherungsblock
Vers borne accessoire du porte-fusible
Blue with white stripe
Blau mit weißem Streifen
Bleu avec bande blanche
A5
To power aerial if any
Zur Motorantenne, sofern vorhanden
Vers borne d'antenne automatique s'il y en a une
Brown / Braun / Marron
A2
To cellular phone system
Zur Mobiltelephon
à un système de téléphone cellulaire
Fuse block
Sicherungsblock
Porte-fusible
*1: Before checking the operation of this unit prior to installation, this lead must be connected, otherwise power cannot be turned on.
*1: Vor der Überprüfung der Funktionsfähigkeit des Geräts vor dem Einbau, muß diese Leitung angeschlossen werden, da sonst die Stromversorgung nicht eingeschaltet werden kann.
*1: Pour vérifier le fonctionnement de cet appareil avant installation, ce fil doit être raccordé, sinon l'appareil ne peut pas être mis sous tension.
B6 B5 B4 B3 B8 B7 B2 B1
White with black stripe
Weiß mit schwarzem Streifen
Blanc avec bande noire
White
Weiß
Blanc
Gray with black stripe
Grau mit schwarzem Streifen
Gris avec bande noire
Gray
Grau
Gris
Green with black stripe
Grün mit schwarzem Streifen
Vert avec bande noire
Green
Grün
Vert
Purple with black stripe
Lila mit schwarzem Streifen
Violet avec bande noire
Purple
Lila
Violet
Left speaker (front)
Linker Lautsprecher (vorne)
Haut-parleur gauche (avant)
Right speaker (front)
Rechter Lautsprecher (vorne)
Haut-parleur droit (avant)
Left speaker (rear)
Linker Lautsprecher (hinten)
Haut-parleur gauche (arrière)
Right speaker (rear)
Rechter Lautsprecher (hinten)
Haut-parleur droit (arrière)

PRECAUTIONS on power supply and speaker connections:

- **DO NOT connect the speaker leads of the power cord to the car battery; otherwise, the unit will be seriously damaged.**
- Connect the black lead (ground), yellow lead (to car battery, constant 12V), and red lead (to an accessory terminal) correctly.
- BEFORE connecting the speaker leads of the power cord to the speakers, check the speaker wiring in your car.
  - **If the speaker wiring in your car is as illustrated in Fig. 1 and Fig. 2 below,** DO NOT connect the unit using that original speaker wiring. If you do, the unit will be seriously damaged. Redo the speaker wiring so that you can connect the unit to the speakers as illustrated in Fig. 3.
  - **If the speaker wiring in your car is as illustrated in Fig. 3,** you can connect the unit using the original speaker wiring in your car.
  - If you are not sure of the speaker wiring of your car, consult your car dealer.

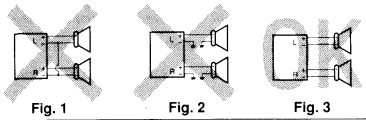


Fig. 1 Fig. 2 Fig. 3

VORSICHTSMASSREGELN beim Anschließen der Stromversorgung und Lautsprecher:

- **Die Lautsprecherleitungen des Netzkabels NICHT an der Autobatterie anschließen, da sonst das Gerät schwer beschädigt wird.**
- Die schwarze Leitung (Erdung), die gelbe Leitung (zur Autobatterie, konstant 12 V) und die rote Leitung (zur Zubehöranschlußklemme) richtig anschließen.
- VOR dem Anschließen der Lautsprecherleitungen des Spannunsgversorgungskabels an die Lautsprecher, die Lautsprecherverdrahtung in Ihrem Auto überprüfen.
  - **Ist die Lautsprecherverdrahtung wie unten in "Fig. 1" und "Fig. 2" abgebildet,** das Gerät NICHT mit der Originalverdrahtung der Lautsprecher anschließen, da sonst das Gerät schwer beschädigt wird. Die Lautsprecherverdrahtung erneuern, so daß Sie das Gerät an den Lautsprechern wie in "Fig. 3" abgebildet anschließen können.
  - **Ist die Lautsprecherverdrahtung in Ihrem Auto wie in "Fig. 3" abgebildet,** können Sie das Gerät mit der Originalverdrahtung der Lautsprecher in Ihrem Auto anschließen.
  - Sind Sie sich über die Lautsprecherverdrahtung in Ihrem Auto nicht sicher, wenden Sie sich an Ihren Autohändler.

PRECAUTIONS sur l'alimentation et la connexion des enceintes:

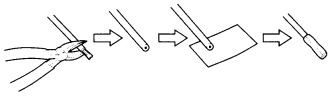
- **NE CONNECTEZ PAS les fils d'enceintes du cordon d'alimentation à la batterie; sinon, l'appareil serait sérieusement endommagé.**
- *Connectez correctement le fil noir (a la masse), le fil jaune (a la batterie de la voiture, 12V constant) et le fil rouge (à la prise accessoire).*
- *AVANT de connecter les fils d'enceintes du cordon d'alimentation aux enceintes, vérifiez le câblage des enceintes de votre voiture.*
  - **Si le câblage des enceintes de votre voiture est réalisé comme montré sur la Fig. 1 ou Fig. 2 ci-dessous, NE** *CONNECTEZ PAS l'appareil en utilisant ce câblage original d'enceintes. Si vous le faites, l'appareil sera sérieusement endommagé.*
    Recommencez le câblage des enceintes de façon que vous puissiez connecter l'appareil aux enceintes comme montré sur la Fig. 3.
  - **Si le câblage des enceintes de votre voiture est comme montré sur la Fig. 3,** *vous pouvez connecter l'appareil en utilisant ce câblage original d'enceintes pour votre voiture.*
  - *Si vous n'êtes pas sûrs du câblage d'enceintes de votre voiture, consulter le concessionnaire de votre voiture.*

Connecting the leads / Anschließen der Leitungen / Raccordement des fils

Twist the core wires when connecting.
Die Kerndrähte beim Anschließen verdrehen.
Torsader les âmes des fils en les raccordant.

Solder the core wires to connect them securely.
Die Kerndrähte anlöten, um sie fest anzuschließen.
Souder les âmes desfils pour les raccorder entre eux de façon sûre.

CAUTION / VORSICHT/ PRECAUTION:
- **To prevent short-circuit, cover the terminals of the UNUSED leads with insulating tape.**
- **Zur Vermeidung eines Kurzschlusses die Anschlußklemmen der NICHT VERWENDETEN Leitungen mit Isolierklebeband umwickeln.**
- **Pour éviter les court-circuits, couvrir les bornes des fils qui ne sont PAS utilisés avec de la bande isolante.**



B Connections Adding Other Equipment / Anschlüsse zum Hinzufügen von anderer Ausrüstung / Raccordement pour ajouter d'autres appareils

Since this unit has line-out terminals, an amplifier and other equipment can be used to upgrade your car stereo system.
- Connect the remote lead (blue with white stripe) to the remote lead of the other equipment so that it can be controlled through this unit.
- For amplifier only:
  - Connect this unit's line-out terminals to the amplifier's line-in terminals.
  - **Disconnect the speakers from this unit, connect them to the amplifier. Leave the speaker leads of this unit unused. (Cover the terminals of the these unused leads with insulating tape, as illustrated above.)**

Da dieses Gerät Anschlußklemmen am Ausgang (line-out) hat, können ein Verstärker und andere Ausrüstung zur Aufwertung Ihrer Autostereoanlage verwendet werden.
- Schließen Sie das Fernsteuerungskabel (blau mit weißem Streifen) an das Fernsteuerungskabel der anderen Komponente an, so daß sie über diese Anlage gesteuert werden kann.
- Nur für den Verstärker:
  - Die Anschlußklemmen am Ausgang (line-out) dieses Gerät an den Anschlußklemmen des Ausgangs (line-out) des Verstärkers anschließen.
  - **Die Lautsprecher von diesem Gerät abtrennen und am Verstärker anschließen. Die Lautsprecherleitungen dieses Geräts unbenutzt lassen. (Die Anschlußklemmen dieser nicht verwendeten Leitungen mit Isolierband umwickeln, siehe Abb. oben.)**

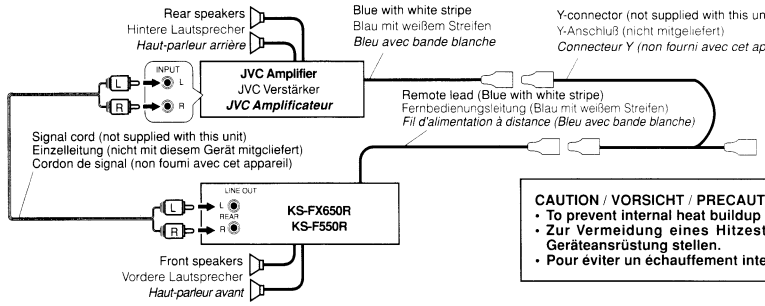
Comme cet appareil a des bornes de sortie de ligne, un amplificateur et d'autres appareils peuvent être utilisés pour améliorer votre chaine stéréo automobile.
- *Connecter le fil d'alimentation à distance (bleu avec bande blanche) au fil d'alimentation à distance de l'autre appareil de façon qu'il puisse être controlé par cet appareil.*
- *Pour l'amplificateur seulement:*
  - *Raccorder les bornes de sortie ligne de cet appareil aux bornes d'entrée ligne de l'amplificateur.*
  - **Déconnectez les enceintes de cet appareil et connectez-les à l'amplificateur. Laissez les fils d'enceintes de cet appareil inutilisés. (Recouvrir les extrémités de ces fils inutilisés avec de la bande isolante comme montré ci-dessus.)**

Amplifier / Verstärker / Amplificateur

You can connect an amplifier and other equipment to upgrade your car stereo system.
- Connect the remote lead (blue with white stripe) to the remote lead of the other equipment so that it can be controlled through this unit.
- For amplifier only:
  - Connect this unit's line-out terminals to the amplifier's line-in terminals.
  - **Disconnect the speakers from this unit, connect them to the amplifier. Leave the speaker leads of this unit unused. (Cover the terminals of these unused leads with insulating tape, as illustrated above.)**

Sie können einen Verstärker oder ein anderes Gerät anschließen, um Ihre Autostereoanlage zu erweitern.
- Schließen Sie das Fernbedienungskabel (blau mit weißem Streifen) an das Fernbedienungskabel des anderen Geräts an, so daß es über dieses Gerät gesteuert werden kann.
- Nur für den Verstärker:
  - Die Anschlußklemmen am Ausgang dieses Gerät an den Anschlußklemmen des Eingangs des Verstärkers anschließen.
  - **Die Lautsprecher von diesem Gerät abtrennen und am Verstärker anschließen. Die Lautsprecherleitungen dieses Geräts unbenutzt lassen. (Die Anschlußklemmen dieser nicht verwendeten Leitungen mit Isolierband umwickeln, siehe Abb. oben.)**

Vous pouvez connecter un amplificateur ou autre appareil pour améliorer votre système autoradio.
- *Connectez le fil de commande à distance (bleu avec bande blanche) au fil de commande à distance de l'autre appareil de façon qu'il puisse être commandé via cet appareil.*
- *Pour l'amplificateur seulement:*
  - *Raccorder les bornes de sortie ligne de cet appareil aux bornes d'entrée ligne de l'amplificateur.*
  - **Déconnectez les enceintes de cet appareil et connectez-les à l'amplificateur. Laissez les fils d'enceintes de cet appareil inutilisés. (Recouvrir les extrémités de ces fils inutilisés avec de la bande isolante comme montré ci-dessus.)**



CAUTION / VORSICHT / PRECAUTION:
- **To prevent internal heat buildup inside this unit, place this unit UNDER the other equipment.**
- **Zur Vermeidung eines Hitzestaus in diesem Gerät, dieses Gerät UNTER die andere Geräteansrüstung stellen.**
- **Pour éviter un échauffement interne de cet appareil, placez-le SOUS l'autre appareil.**

CD changer and DAB tuner / CD-Wechsler und DAB-Tuner / Changeur CD et tuner DAB

ONLY FOR KS-FX650R

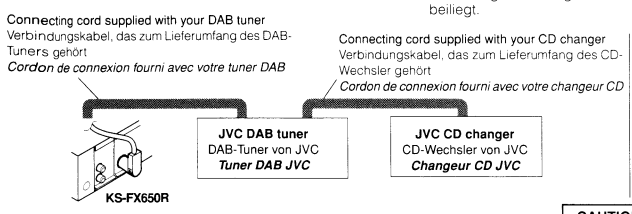
You can connect a JVC CD changer and/or a JVC DAB (Digital Audio Broadcasting) tuner.
- For their connections, refer to the instructions supplied with them.

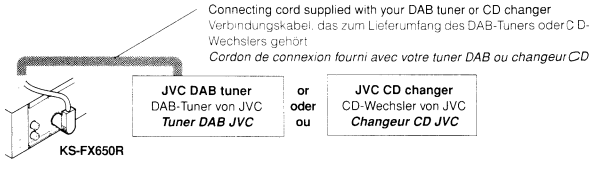
NUR FÜR KS-FX650R

Sie können einen CD-Wechsler und/oder einen DAB-Tuner (Tuner für digitalen Rundfunk) von JVC anschließen.
- Weitere Informationen über den Anschluß können Sie der Bedienungsanleitung entnehmen, die dem jeweiligen Gerät beiliegt.

SEULEMENT POUR LE KS-FX650R

Vous pouvez connecter un changeur CD JVC et/ou un tuner DAB (Digital Audio Broadcast) JVC.
- *Pour leurs connexions, référez-vous aux modes d'emploi qui les accompagnent.*


Connecting cord supplied with your DAB tuner
Verbindungskabel, das zum Lieferumfang des DAB-Tuners gehört
Cordon de connexion fourni avec votre tuner DAB
Connecting cord supplied with your CD changer
Verbindungskabel, das zum Lieferumfang des CD-Wechsler gehört
Cordon de connexion fourni avec votre changeur CD
JVC DAB tuner
DAB-Tuner von JVC
Tuner DAB JVC
JVC CD changer
CD-Wechsler von JVC
Changeur CD JVC
KS-FX650R


Connecting cord supplied with your DAB tuner or CD changer
Verbindungskabel, das zum Lieferumfang des DAB-Tuners oder CD-Wechslers gehört
Cordon de connexion fourni avec votre tuner DAB ou changeur CD
JVC DAB tuner
DAB-Tuner von JVC
Tuner DAB JVC
or
oder
ou
JVC CD changer
CD-Wechsler von JVC
Changeur CD JVC
KS-FX650R

- You can connect both components in series as illustrated above.
- Es ist möglich, beide Komponenten in einer Serienschaltung entsprechend der obigen Darstellung anzuschließen.
- *Vous pouvez connecter les deux appareils en série comme montré ci-dessus.*

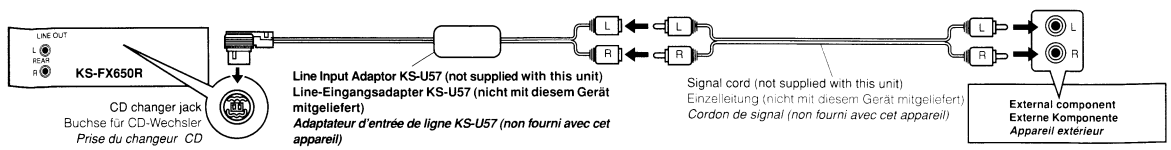
CAUTION / VORSICHT / PRECAUTION:
- **Before connecting the CD changer and/or the DAB tuner, make sure that the unit is turned off.**
- **Bevor Sie den CD-Wechsler und/oder den DAB-Tuner anschließen, vergewissern Sie sich, daß das Gerät ausgeschaltet ist.**
- **Avant de connecter le changeur CD et/ou le tuner DAB, s'assurer que l'unité est éteinte.**

External component / Externe Komponente / Appareil extérieur

ONLY FOR KS-FX650R

NUR FÜR KS-FX650R

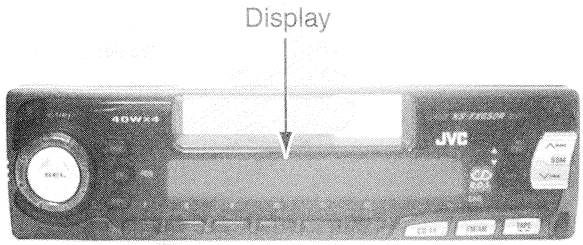
SEULEMENT POUR LE KS-FX650R

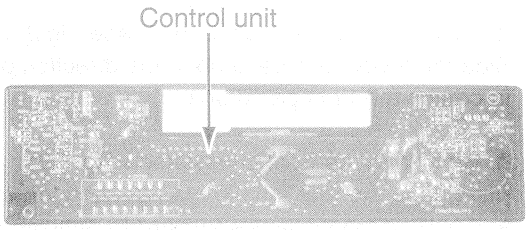

LINE OUT
REAR
KS-FX650R
CD changer jack
Buchse für CD-Wechsler
Prise du changeur CD
Line Input Adaptor KS-U57 (not supplied with this unit)
Line-Eingangsadapter KS-U57 (nicht mit diesem Gerät mitgeliefert)
Adaptateur d'entrée de ligne KS-U57 (non fourni avec cet appareil)
Signal cord (not supplied with this unit)
Einzelleitung (nicht mit diesem Gerät mitgeliefert)
Cordon de signal (non fourni avec cet appareil)
External component
Externe Komponente
Appareil extérieur

<< M E M O >>

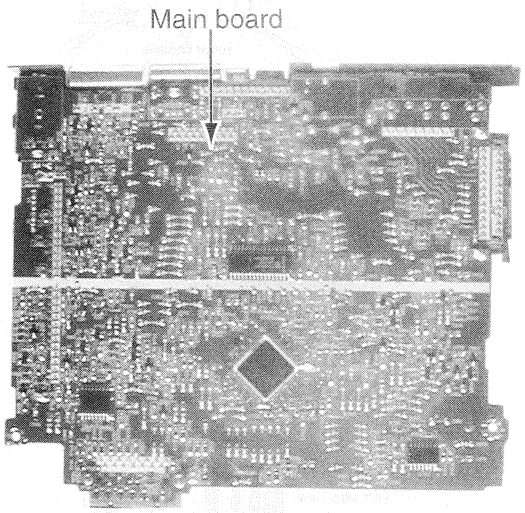
Location of main parts

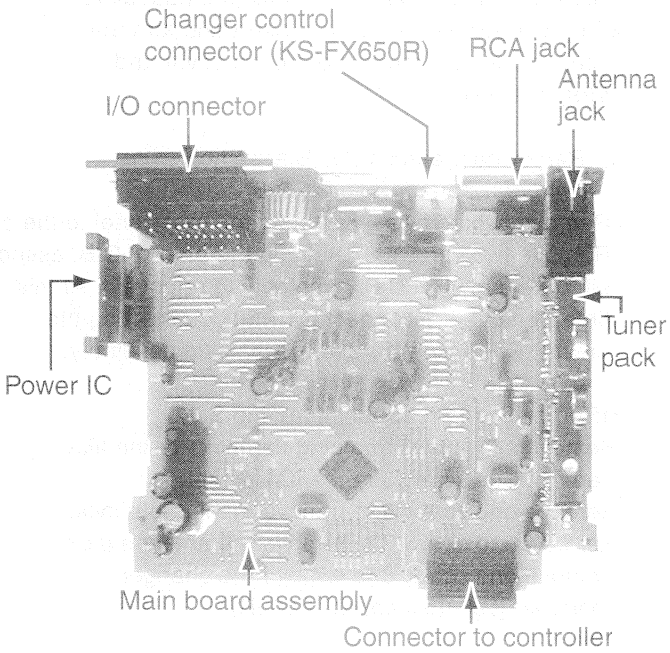
Control unit



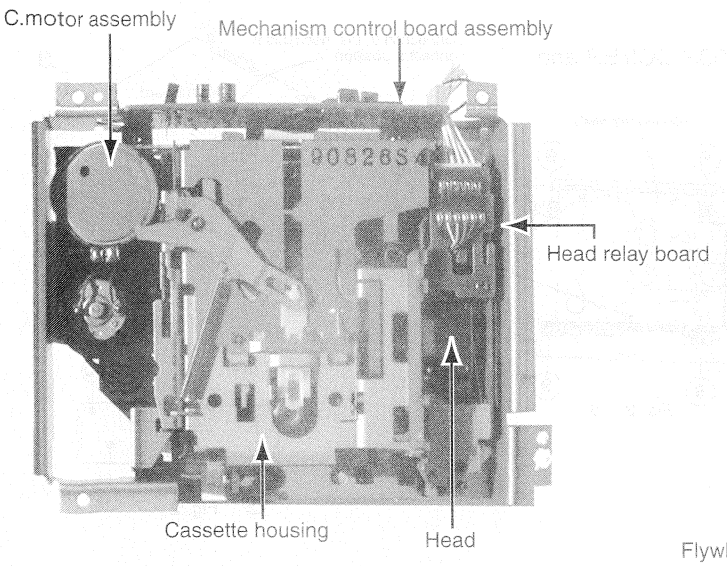


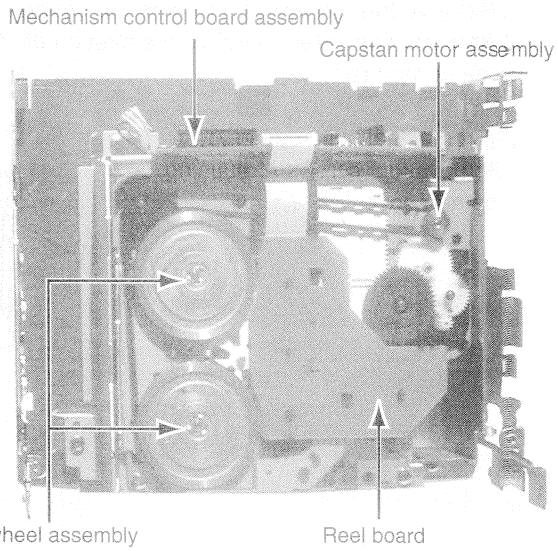
Main unit





Cassette mechanism





Disassembly Method

Removal of main parts

■ Enclosuer section

(1) Detaching the front panel unit (see Fig.2-1)
Side the Release slide knob in the direction of arrow to detach the front panel unit.

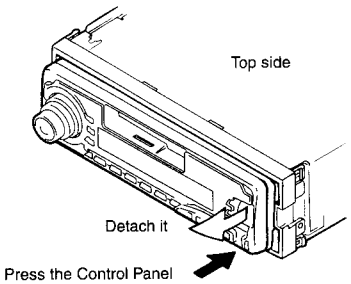


Fig. 2 - 1

(2) Removing the front chassis(see Fig.2-2)
Disengage the four tabs in the right and left sides of unit and pull the front chassis forward to remove it.

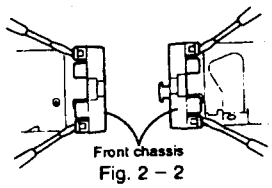


Fig. 2 – 2

(3) Removing the bottom cover(see Fig.2-3.2-4)
1.Remove one screw 2 retaining the IC to the heat sink.
2.Remove two screws 1 to remove the heat sink.
3.Turn the upside down, then insert and turn the screwdriver to remove the bottom cover and protect sheet.

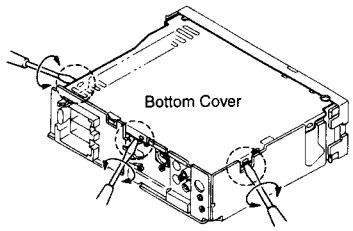


Fig. 2 – 3

(4) Removing the main P.C.B.assembly (with rear panel) (see Fig.2-5)
1.Remove two screws 4 retaining the rear panel to the chassis.
2.Remove two screws 3 retaining the amp. P.C.B. assembly.
3.Lift up the main P.C.B. assembly to remove it. At this time, remove the connector CP501 connecting the main P.C.B assembly and mechanism assembly.

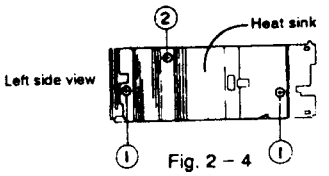


Fig. 2 – 4

(5)Removing the rear panel(see Fig.2-5)
Remove six screws retaining the jacks or the like.
Remove one screw 5 to the IC bracket.
Remove one screw 6 to remove the line-out jack.
Remove one screw 7 to remove the antenna jack.
Remove one screw 8 to remove the changer controller jack. (except KS-F530R)

(6)Mechanism assembly(see Fig.2-6)
1.Remove four mechanism mouting screws 9 retaining the mechanism assembly.
2.Remove four screws B retaining the cover.
3.Remove one screw which is the fixation of TOP COVER and the substrate.

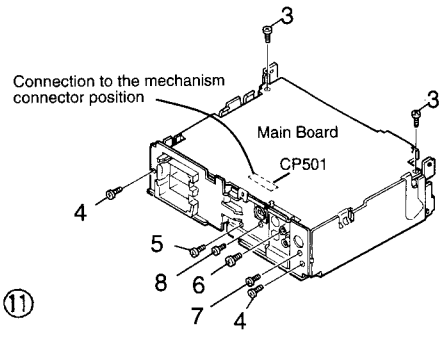


Fig. 2 – 5

(7)Front panel unit(see Fig.7)
Remove four screws A retaining the rear cover.

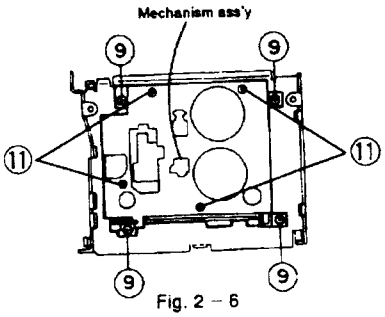


Fig. 2 – 6

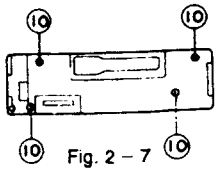


Fig. 2 – 7

<Removal of the cassette mechanism>

■ Removing the mecha control P.W.B.

(See Fig.1 and 2)

1. For the 6pin harness extending from connector CN402 on the mecha control P.W.B, disconnect it from the head relay P.W.B.
2. Disconnect the card wire from connector CN403 on the mecha control P.W.B.
3. Remove the screw A attaching the mecha control P.W.B.
4. Move the tab a as shown in Fig.2 and remove the mecha control P.W.B. while moving it in the direction of the arrow.

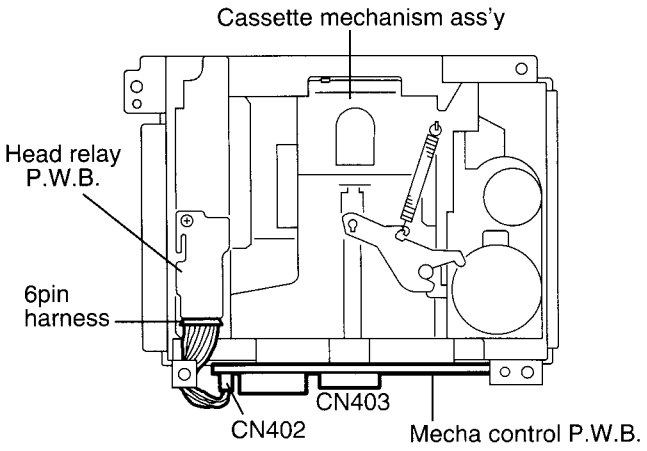


Fig.1

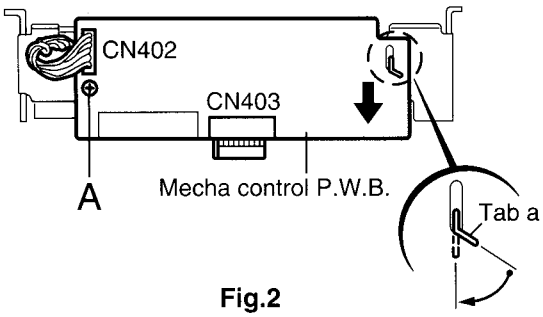


Fig.2

■ Removing the cassette mechanism assembly (See Fig.1 to 3)

1. Disconnect the 6pin harness from connector CN402 and the card wire from CN403 on the mecha control P.W.B. (Refer to Fig.1 and 2).
2. Remove the four screws B on the bottom of the cassette mechanism.

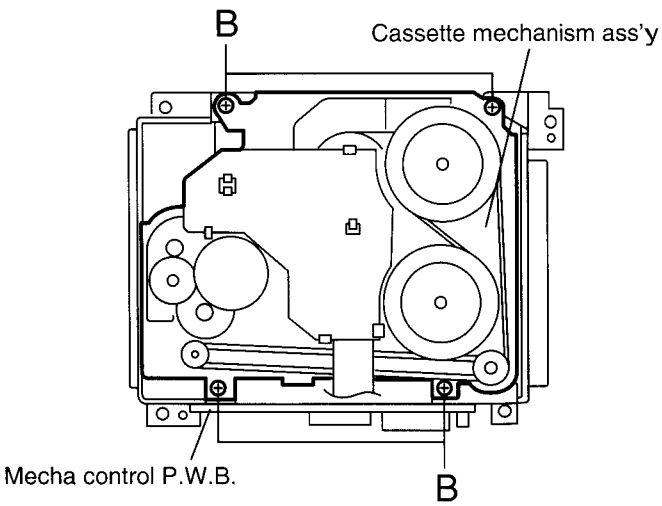


Fig.3

■Removing the head relay P.W.B.

(See Fig.4)

1. Unsolder the soldering b on the head relay P.W.B.
2. Remove the screw C attaching the head relay P.W.B.
3. Remove the head relay P.W.B. in the direction of the arrow while releasing the two joints c.

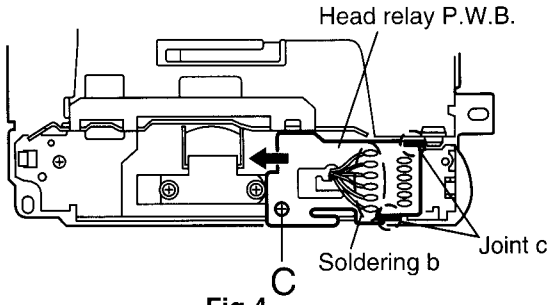


Fig.4

■Removing the load arm (See Fig.5)

1. Remove the E washer attaching the load arm using a pincette or something like that and remove the spring d.
2. Move the part of the load arm marked ※ upwards to release it from the axis of rotation. Then rotate the load arm in the direction of the arrow to remove it from the cach.

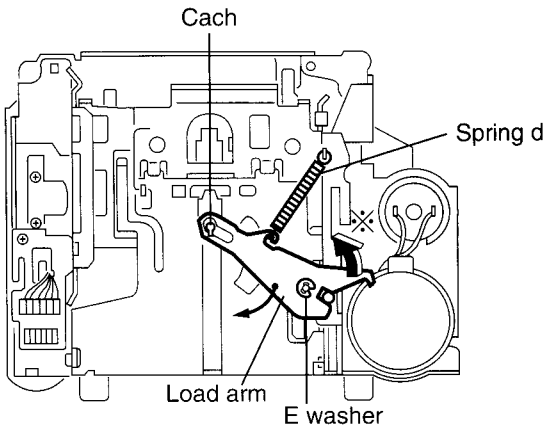


Fig.5

■Removing the sub chassis (See Fig.6)

* Prior to performing the following procedure, remove the head relay P.W.B.

1. Remove the screw D attaching the sub chassis.
2. Push the tab e in the direction of the arrow to detach the one side of the sub chassis. Then release the sub chassis from the tab f.

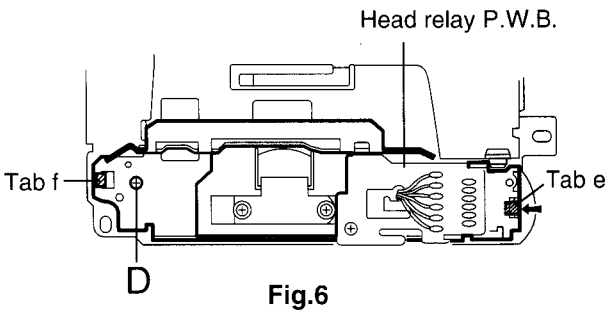


Fig.6

■Removing the cassette holder and the holder arm in the eject mode

(See Fig.7 and 8)

* Prior to performing the following procedure, remove the head relay P.W.B., the load arm and the sub chassis.

1. Remove the screw E attaching the reinforce bracket.
2. Remove the reinforce bracket.
3. Push the tab g fixing the cassette holder in the direction of the arrow and open the cassette holder and the holder arm upward until they stop at an angle of 45 degrees. Move the two joints h to the side and remove the cassette holder and the holder arm from the shaft.

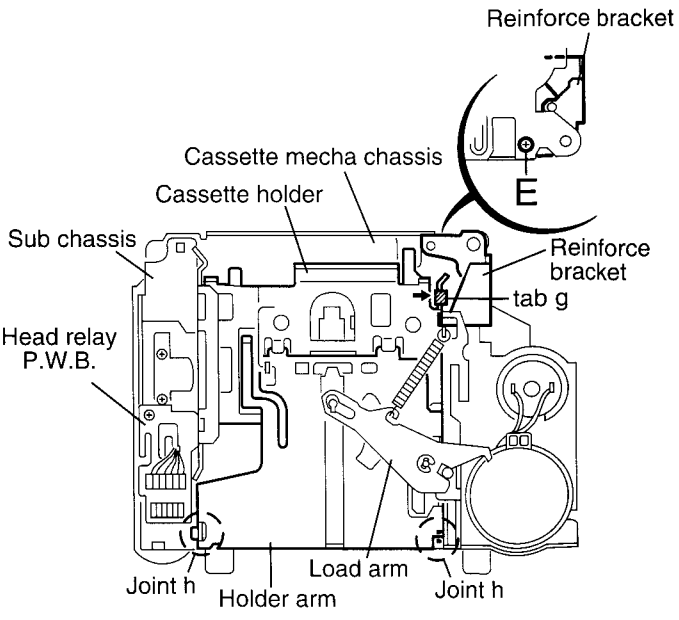


Fig.7

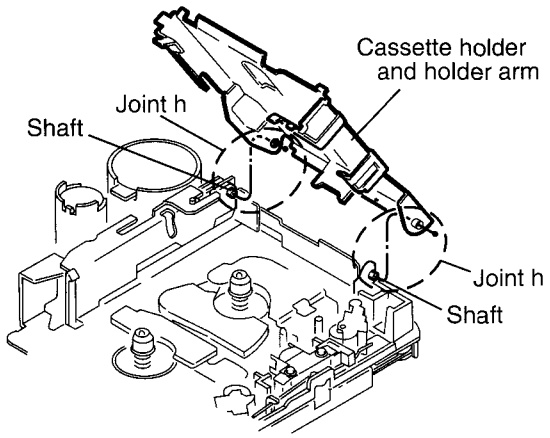


Fig.8

■Removing the play head (See Fig.9)

* Prior to performing the following procedure, remove the head relay P.W.B.and the sub chassis.

1. Remove the two screws F attaching the play head (The spring under the play head comes off at the same time).

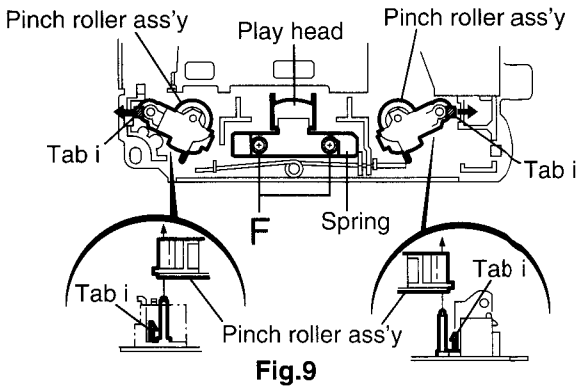


Fig.9

■Removing the pinch roller ass'y (See Fig.9)

* Prior to performing the following procedure, remove the head relay P.W.B.and the sub chassis.

1. Push each tab i in the direction of the arrow and pull out the pinch rollers on both sides.

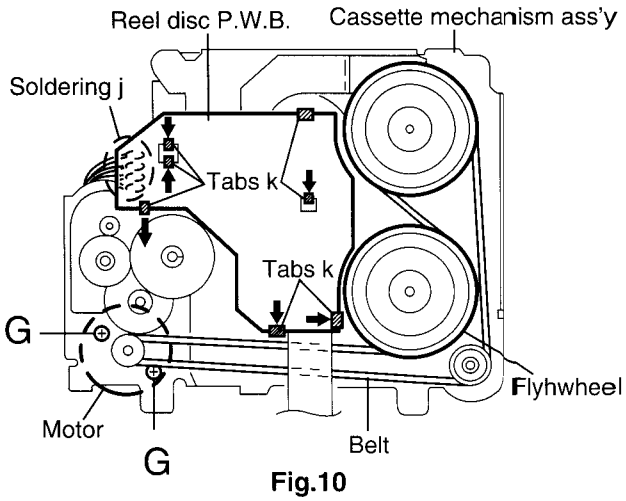


Fig.10

■Removing the reel disc P.W.B. (See Fig.10)

1. Unsolder the soldering j on the reel disc P.W.B.

2. Push the seven tabs k on the bottom of the cassette mechanism assembly in the direction of the arrow.

■Removing the motor and the sub motor (See Fig.10 and 11)

1. Unsolder the two soldering l of the motor and the sub motor.

2. Release the sub motor from the three tabs m. Push the sub motor upward and pull out it.

3. Remove the belt on the bottom of the cassette mechanism assembly and remove the two screws G attaching the motor.

ATTENTION: The motors can be detached before removing the load arm.

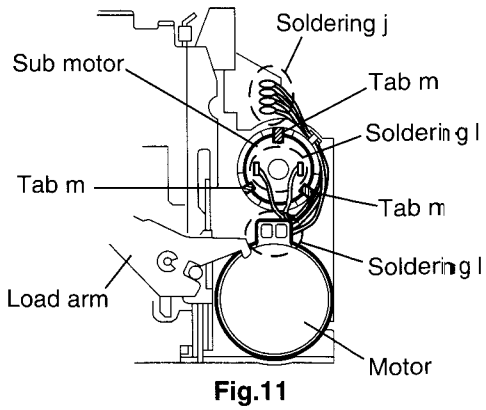


Fig.11

■Removing the flywheel

(See Fig.10 and 12)

1. Prior to performing the following procedure, remove the head relay P.W.B, the load arm, the sub chassis, the cassette holder, the holder arm and the reel disc P.W.B.

2. Remove the belt on the bottom of the cassette mechanism ass'y.

3. Remove the slit washer attaching the flywheel on the upper side of the cassette mechanism ass'y and pull out the flywheel downward. Then remove another flywheel in the same way.

ATTENTION: When reassembling, make sure to use a new slit washer.

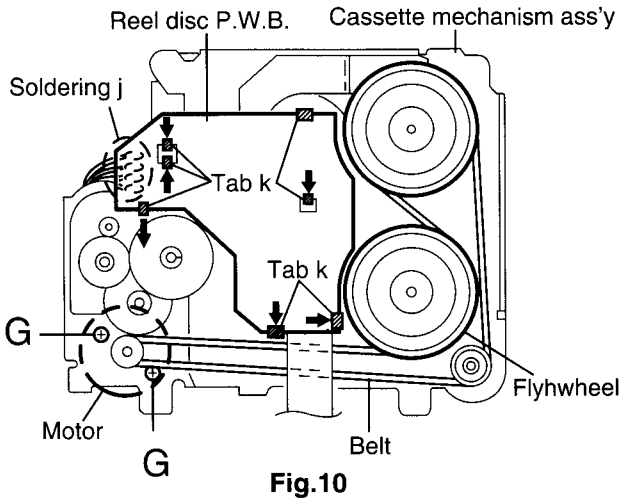


Fig.10

■Removing the reel disc ass'y(I)

(See Fig.12 to 14)

* Prior to performing the following procedure, remove the head relay P.W.B, the load arm, the sub chassis, the cassette holder and the holder arm.

1. Disengage the part n inside of the reel driver which engages with the shaft, using a pincette or something like that. Then remove the reel driver from the shaft.

2. Remove the reel driver spring and the reel table.

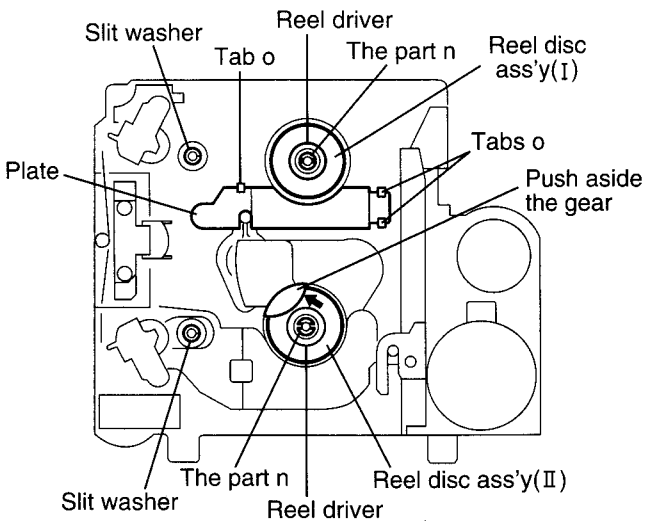


Fig.12

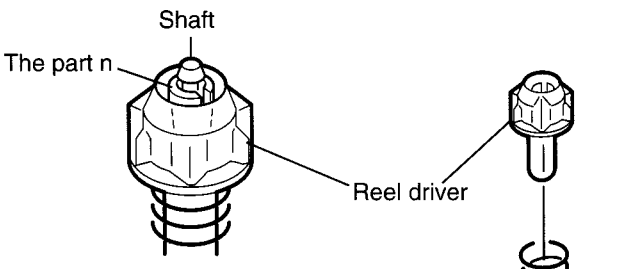


Fig.13

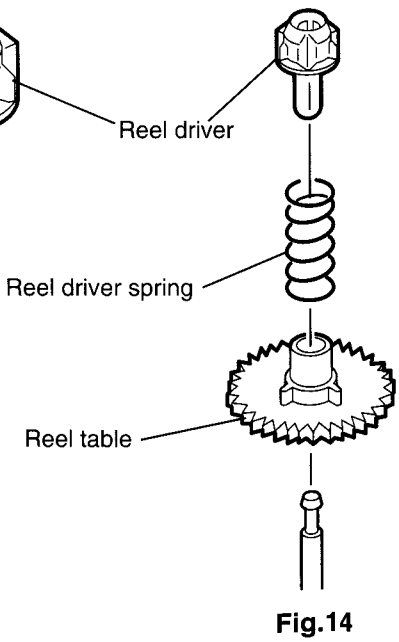


Fig.14

■ Removing the reel disc ass'y(Ⅱ)

(See Fig.12 to 15)

ATTENTION: Prior to performing the following procedure, remove the reel disc (Ⅰ).

1. Release the plate from the three tabs o.
2. Push aside the gear over the reel table using a pincette or something like that.
3. Remove the reel disc ass'y (Ⅱ) as with the reel disc ass'y (Ⅰ).

ATTENTION: Do not break the front panel tab fitted to the metal cover.

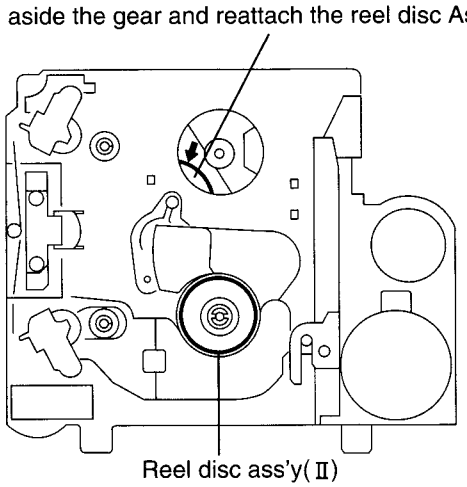


Fig.15

Adjustment method

■ Test instruments reqired for adjustment

1. Digital oscllloscope(100MHz)
2. Frequency Counter meter
3. Electric voltmeter
4. Wow & flutter meter
5. Test Tapes

MC-109C ..... for TAPA CURL confirmation (without Padd type)
VT724 ..... for DOLBY level measurement
VT739 ..... For playback frequency measurement
VT712 .... For wow flutter & tape speed measurement
VT703 ..... For head azimuth measurement

6. Torque gauge ..... Cassette type for CTG-N (mechanism adjustment)

■ Measuring conditions(Amplifier section)

Power supply voltage ..... DC14.4V (10.5 - 16V)
Load impedance ..... 4Ω (2Speakers connection)
Line out 20kΩ

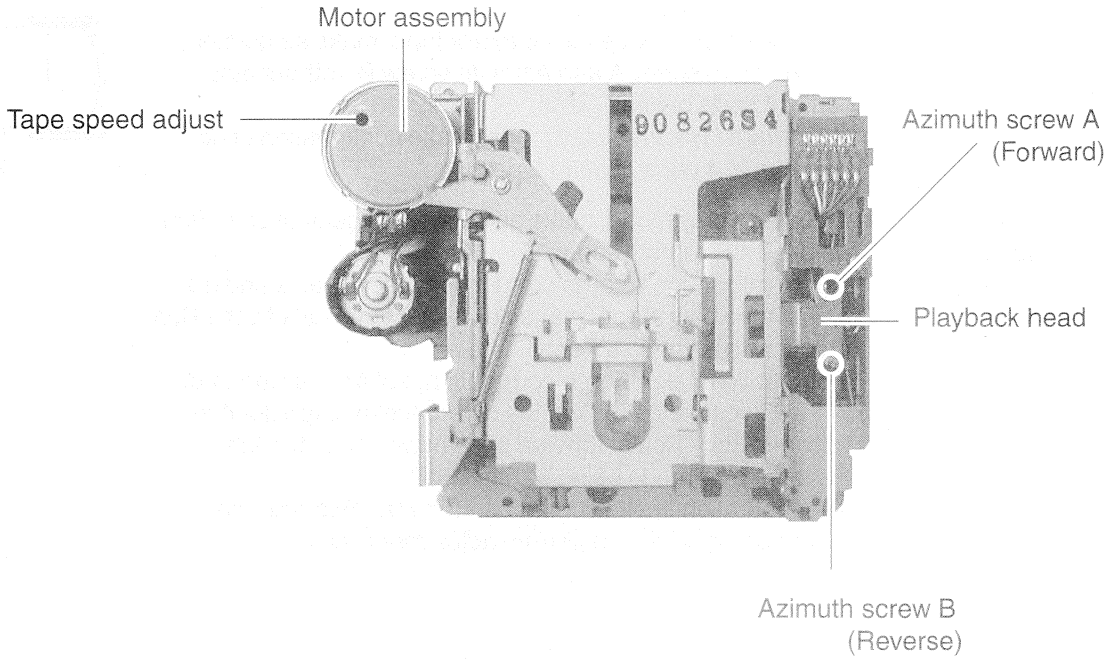
■ Standard volume position

Balance and Bass,Treble volume .Fader :Center(Indication"0")
Loudness,Dolby NR,Sound,Cruise:Off
Volume position is about 2V at speaker output with following conditions.Playback the test tape VT721.

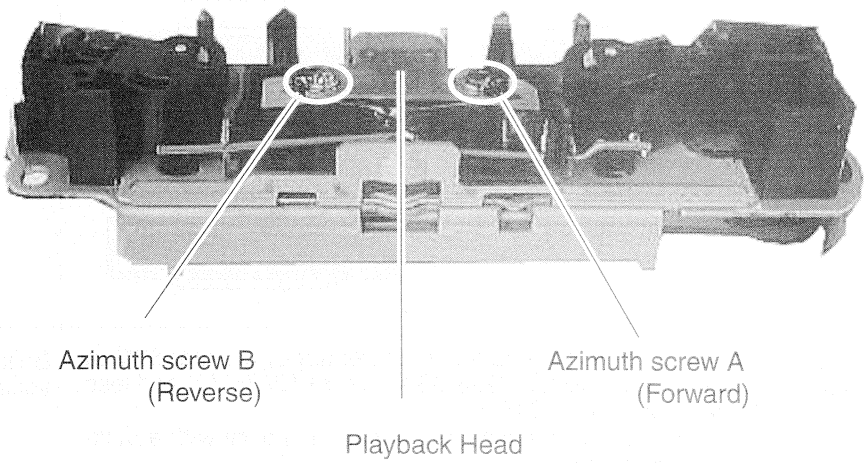
AM mode	999kHz/62dB,INT/400Hz,30% modulation signal on recieving.
FM mono mode	97.5MHz/66dB,INT/400Hz,22.5kHz deviation pilot off mono
FM stereo mode	1kHz,67.5kHz dev. pilot7.5kHz dev.
Output level	0dB(1μV,50Ω/open terminal)

■ Arrangement of adjusting & test points

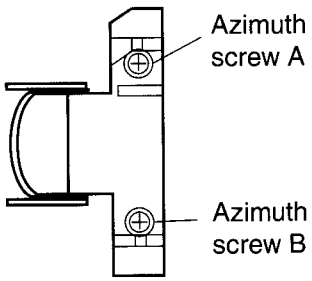
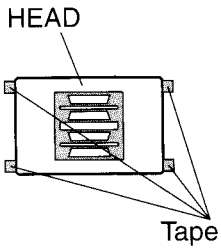
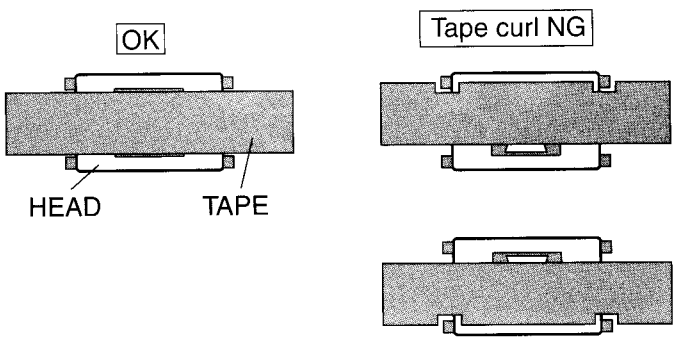
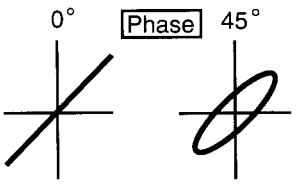
Cassette mechanism
(Surface)



Head section view



■Mechanism adjustment section

Item	Adjusting & Confirmation Methods	Adjust	Std. Value
1. Tape running adjustment	a) At Forward playmode, using mirror tape, make adjustment with Azimuth screw A and Azimuth screw B, without curl of 4 parts of head tape guide. b) At Reverse play mode, using mirror tape, make adjustment with Azimuth screw A and Azimuth screw B, without tape curl of 4 parts of head guide. c) At Forward / Reverse play mode, make confirmation of no tape curl of 4 parts of head tape guide.		
2. Azimuth adjustment confirmation	a) At forward play mode, make adjustment of peak of Lch / Rch output with Azimuth screw A. * For Oscilloscope litharge corrugation, set 45° as standard. b) At Reverse play mode, make adjustment of peak of Lch / Rch output with Azimuth screw B. * For Oscilloscope litharge corrugation, set 45 as standard. c) With AC volt meter confirm the difference of output for 4ch between Lch / Rch at forward play mode and Lch / Rch Reverse play mode being within 3.0dB. d) After operation, make confirmation of Lch / Rch azimuth output being within 1.0dB from adjustment value.  		
2. Tape Speed and Wow & Flutter	1. Check to see if the reading of the frequency counter & W ow flutter meter is within 2940-3090 Hz(FWD/REV), and less than 0.35% (JIS RMS). 2. In case of out of specification, adjust the motor with a built-in volume resistor .	Built-in volume resistor	Tape Speed 2940-3090Hz Wow&Flutter Less than 0.35% (JIS RMS)
3. Playback Frequency response	1. Play the test tape (VT724 : 1kHz) back and set the volume position at 2V . 2. Play the test tape (VT739)back and confirm 0±3dB at1kHz/ 10kHz and -4+2dB at 1kHz/63Hz. 3. When 10kHz is out of specification, it will be necessary to read adjust the azimuth.		Speaker out 1kHz/10kHz : 0dB±3dB, 63Hz/1kHz : -4dB+2dB,

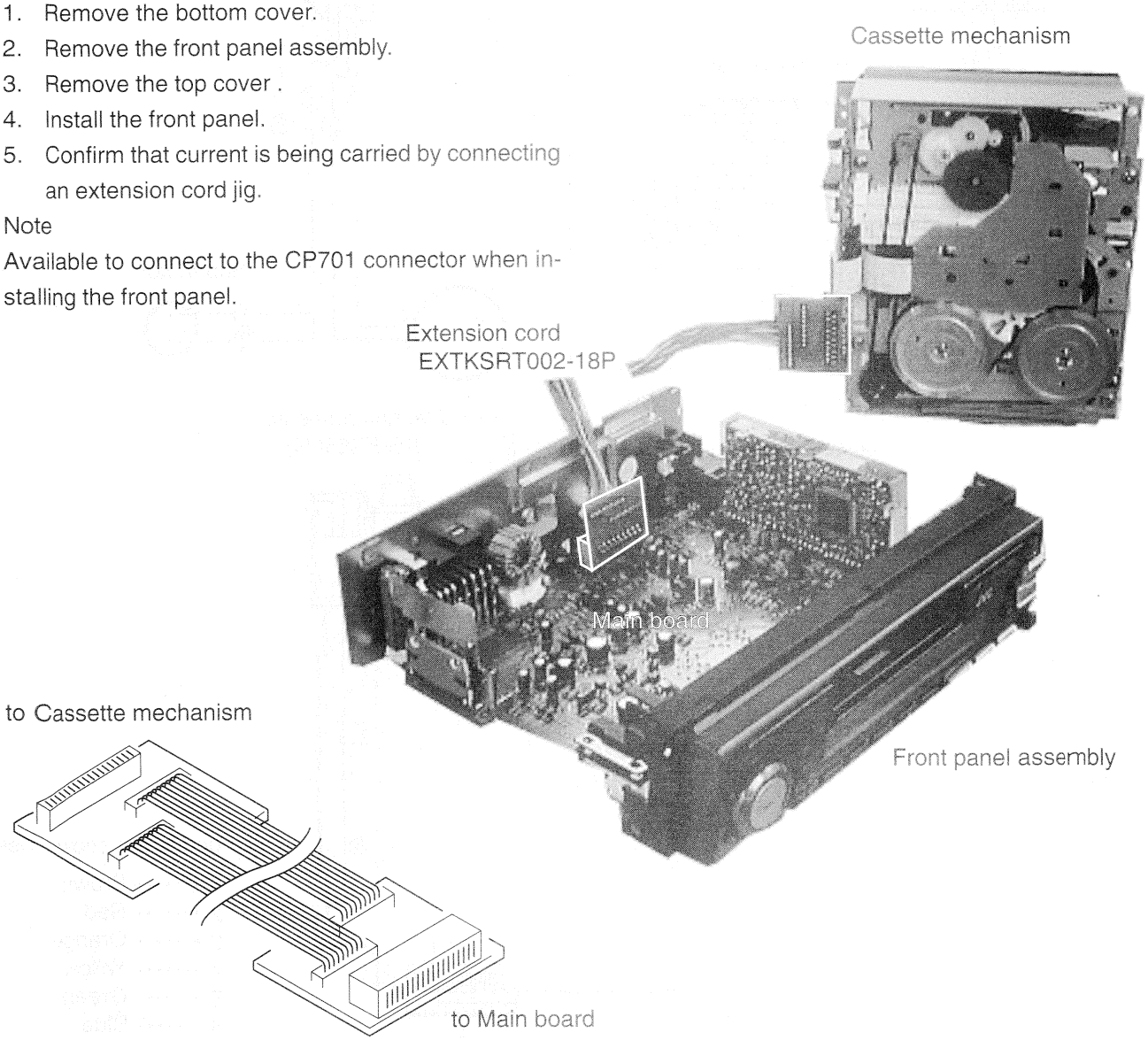
■ Information for using a car audio service jig

1. We're advancing efforts to make our extension cords common for all car audio products.
   Please use this type of extension cord as follows.
2. As a U-shape type top cover is employed, this type of extension cord is needed to check operation of the mechanism assembly after disassembly.
3. Extension cord : EXTKSRT002-18P (18 pin extension cord) For connection between mechanism assembly and main board assembly.
   Check for mechanism driving section such as motor ,etc..

■ Disassembly method

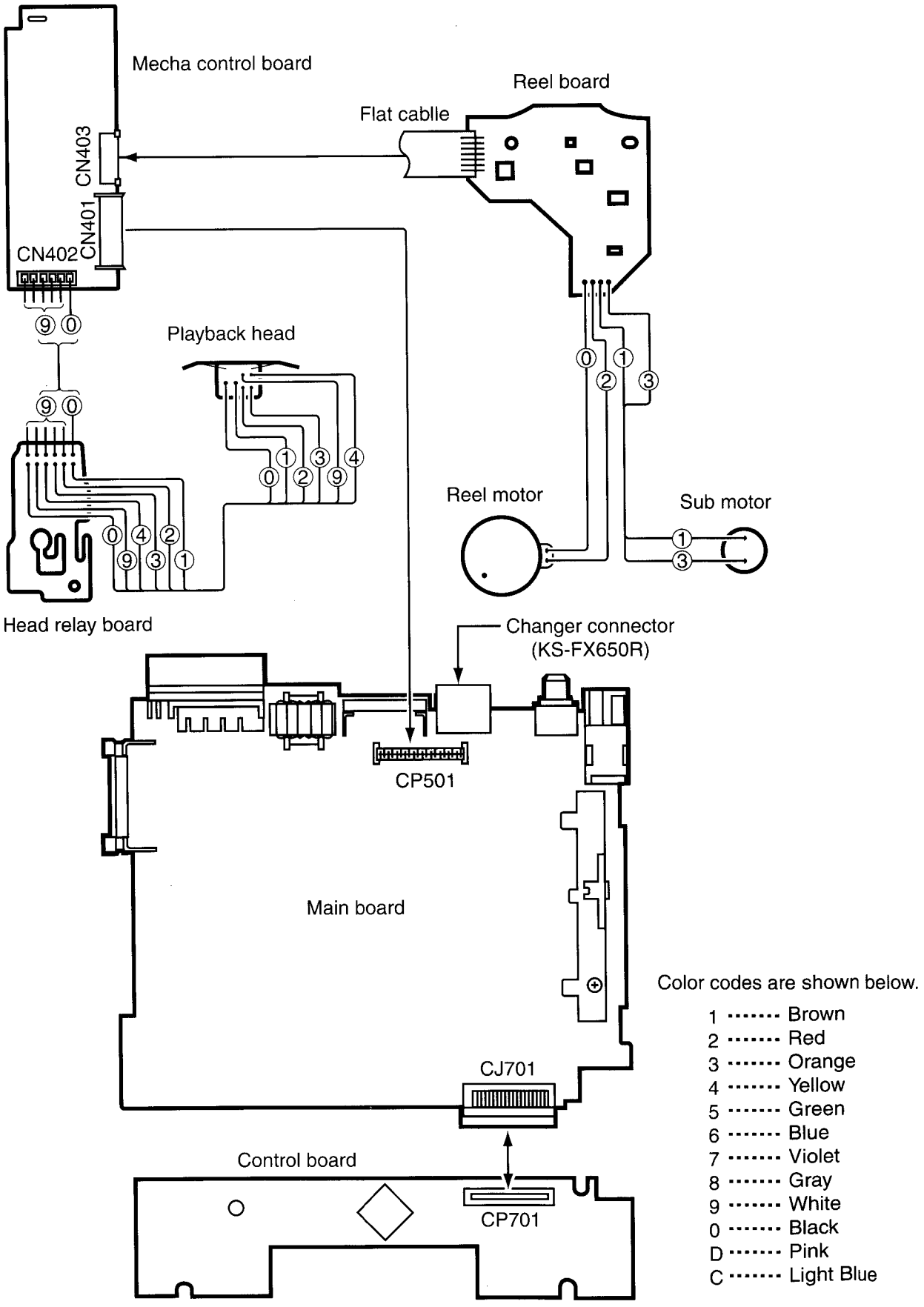
1. Remove the bottom cover.
2. Remove the front panel assembly.
3. Remove the top cover .
4. Install the front panel.
5. Confirm that current is being carried by connecting an extension cord jig.

Note
Available to connect to the CP701 connector when installing the front panel.



EXTKSRT002-18P

Wiring connections



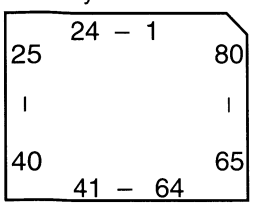
Color codes are shown below.

1 ····· Brown
2 ····· Red
3 ····· Orange
4 ····· Yellow
5 ····· Green
6 ····· Blue
7 ····· Violet
8 ····· Gray
9 ····· White
0 ····· Black
D ····· Pink
C ····· Light Blue

Description of major ICs

■UPC178016AGC552 (IC701) : System controller micon

1.Terminal Layout

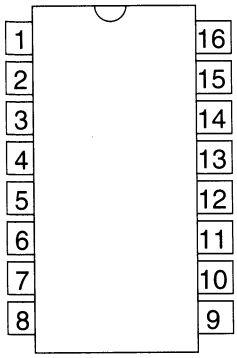


2.Description

Pin No.	Symbol	I/O	Function	Pin No.	Symbol	I/O	Function
1	KEY0	I	Key input 0	43	DOLBY	O	Dolby NR output H:Dolby NR ON
2	KEY1	I	Key input 1	44	MS IN	I	Between tunes signal input
3	KEY2	I	Key input 2				H:Between tunes
4	LEVEL	I	Level meter input	45	I2CSCK	I/O	E-VOL IC control clock I/O
5	SM	I	Signal meter input	46	I2CDAO	O	E-VOL IC control data output
6	SQ	I	Signal quality input	47	I2CDAI	I	E-VOL IC control data input
7	LCDCE	O	Chip enable output to LCD driver	48	REEL	I	Reel rotation detect signal input
8	LCDDA	O	Data output to LCD driver	49	SUBMO-	O	Sub motor output -
9	LCDSCK	O	Clock output to LCD driver	50	SUBMO+	O	Sub motor output +
10	BUSI/O	O	J-BUS I/O switch output	51	MODE	I	Mode position detection input H:Non-mode
11	UNLOCK	O	PLL unlock output L:unlock H:lock				L:Mode position
12	BUSSI	I	J-BUS data input	52	TAPEIN	I	Cassette in detect input H:IN L:OUT
13	BUSSO	O	J-BUS data output	53	STBY	I	Standby detect input H:Eject side
14	BUSSCK	O	J-BUS clock output				L:Operation side
15 - 20	NC	-	Non connect	53	T-END	I	Tape end detect input 200ms L:tape end
21	GNDPORT	-	GND for port	54-59	NC	-	Non connect
22	VDDPORT	-	VDD for port	60	MUTE	O	L:Mute ON H:Mute OFF
23	NC	-	Non connect	61	POWER	O	Power supply output H:power ON
24	AFCK	O	AF check output L:AF check	62	TEL-MUTE	I	TEL-MUTE input
25	MONO	O	Monaural ON/OFF output H:Monaural ON	63, 64	NC	-	Non connect
26	FM/AM	O	Output for FM power supply H:FM Mode	65	ENC1	I	Encoder signal input
27	SEEK/STOP	O	Auto seek/Stop output H:Aut seek L:Stop	66	ENC2	I	Encoder signal input
28	NC	I	Non connect	67	ON	I	H:Operation mode L:Power save mode
29	IFC	I	FM middle frequency counter input	68	STOP	I	Stop mode input
30	VDDPLL	-	VDD for PLL	69	RDSCK	I	RDS clock input
31	OSC	I	FM/AM oscillation input	70	RDSDA	I	RDS data input
32	NC	-	Non connect	71	REMOCON	I	Remocon signal input (Not used)
33	GNDPLL	-	GND for PLL	72	DETACH	I	Detach input It is "L" of 200ms or more and
34	EO0	O	Error out output from change pump				an operation mode H:power save mode
35	EO1	O	Error out output from change pump	73	JBUS INT	I	J-BUS Interruption input
36	IC	-	Connect to Ground	74	REGCPU	-	Connects GND through the capacitor
37	SD/ST	I	Seek/Stop port H:SD input				of 0.1μF
			Seek/Stop port L:Stereo input	75	GND	-	To ground
38	STAGE	I	H:It is CD mode and there is REPEAT	76	X2	-	Crystal oscillator connection for system
			L:Does not exist	77	X1	-	clock oscillation
39	NC	-	Non connect	78	REGOSC	-	Connects GND through the capacitor
40	MOTOR	O	Main motor output H:At rotation				of 0.1μF
41	FF/REW	O	MS IC sensitivity switch output L:FF/REW	79	VDD	-	Power supply
42	F/R	O	FWD/REV change input H:FWD L:REV	80	NC	-	Non connect

■SAA6579T-X (IC761) : RDS Demodulator

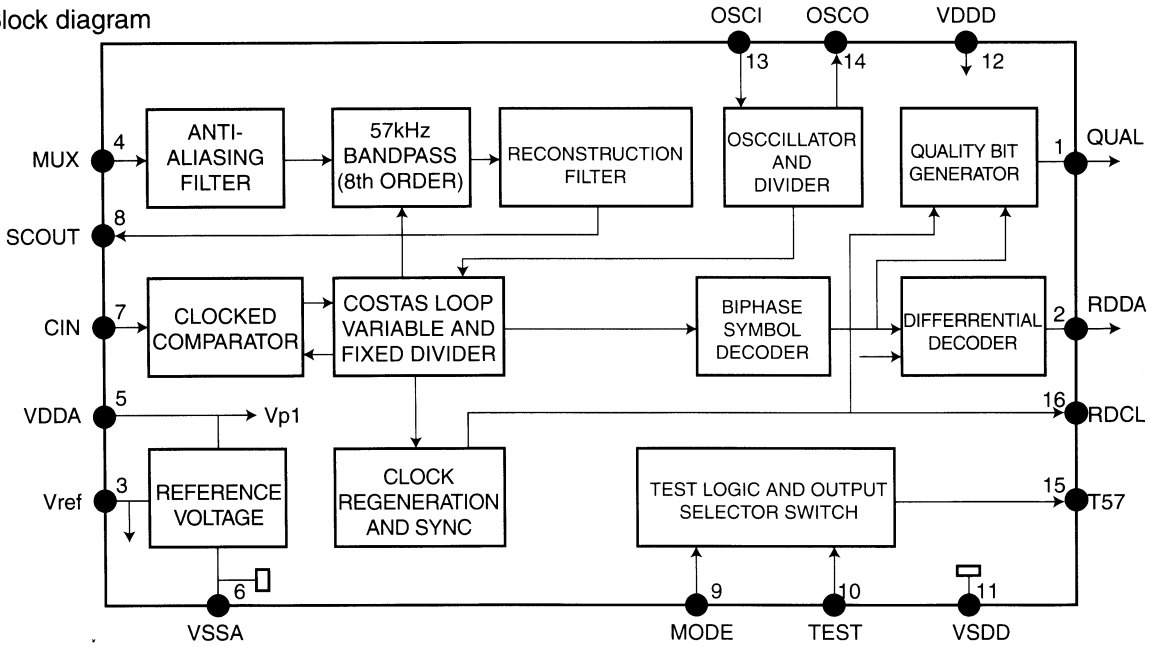
1. Pin layout



2. Pin function

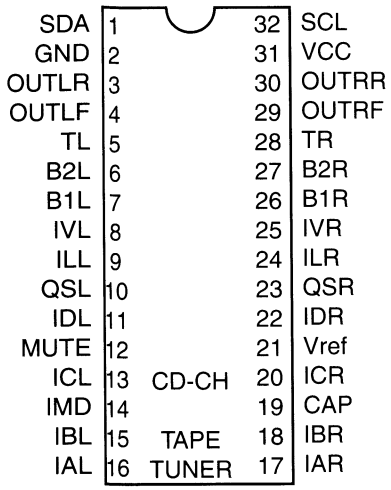
Pin No.	Symbol	Function
1	QUAL	Quality indication output
2	RDDA	RDS data output
3	Vref	Reference voltage output (0.5VDDA)
4	MUX	Multiplex signal input
5	VDDA	+5V supply voltage for anarog part
6	VSSA	Ground for analog part (0V)
7	CIN	Subcarrier input to comparator
8	SCOUT	Subcarrier output of reconstruction filter
9	MODE	Oscillator mode / test sontrol input
10	TEST	Test enable input
11	VSSD	Ground for digital part (0V)
12	VDDD	+5V supply voltage for digital part
13	OSCI	Oscillator input
14	OSCO	Oscillator output
15	T57	57kHz clock signal output
16	RDCL	RDS clock output

3. Block diagram

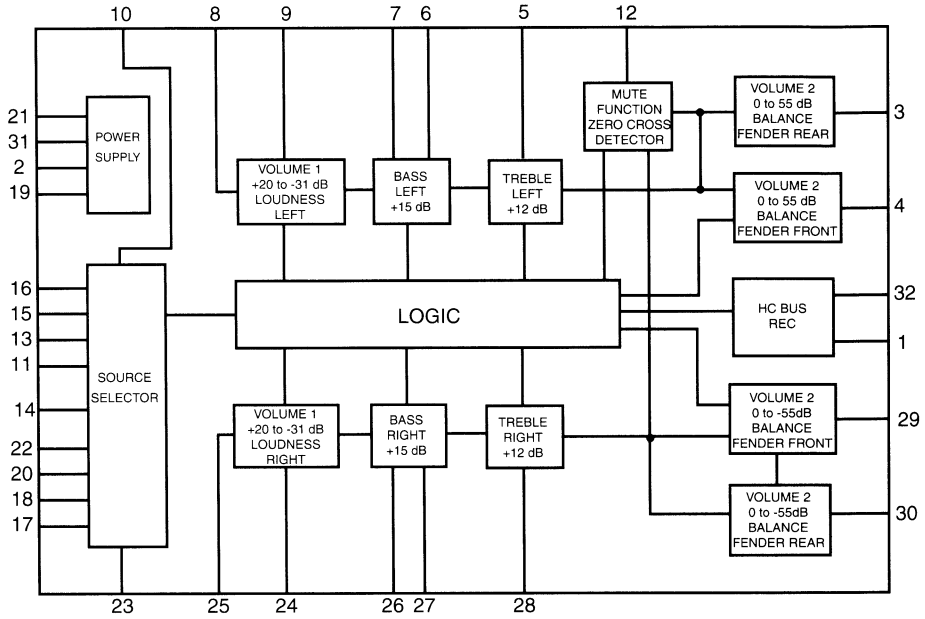


■TEA6320T-X (IC911) : E.volume

1.Pin Layout



2.Block Diagram

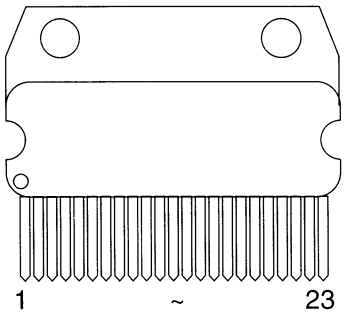

POWER SUPPLY
SOURCE SELECTOR
LOGIC
VOLUME 1 +20 to -31 dB LOUDNESS LEFT
VOLUME 1 +20 to -31 dB LOUDNESS RIGHT
BASS LEFT +15 dB
BASS RIGHT +15 dB
TREBLE LEFT +12 dB
TREBLE RIGHT +12 dB
MUTE FUNCTION ZERO CROSS DETECTOR
VOLUME 2 0 to 55 dB BALANCE FENDER REAR
VOLUME 2 0 to 55 dB BALANCE FENDER FRONT
HC BUS REC
VOLUME 2 0 to -55dB BALANCE FENDER FRONT
VOLUME 2 0 to -55dB BALANCE FENDER REAR

3.Pin Functions

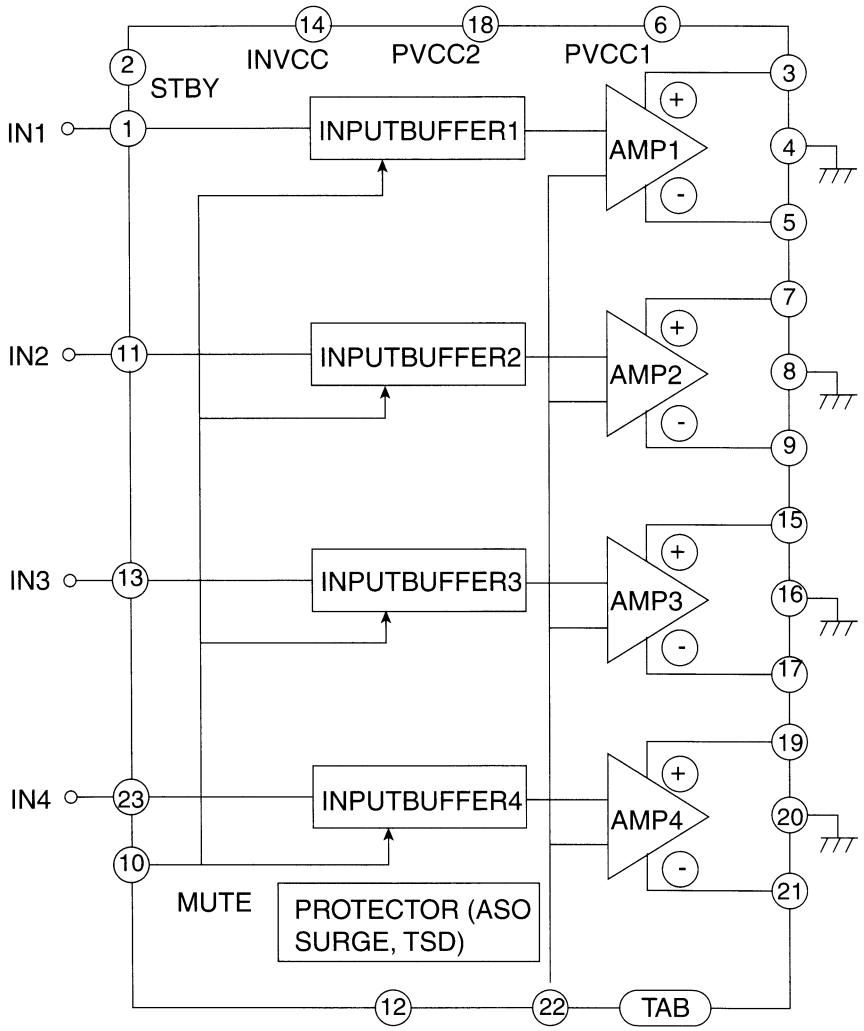
Pin No.	Symbol	I/O	Functions	Pin No.	Symbol	I/O	Functions
1	SDA	I/O	Serial data input/output.	17	IAR	I	Input A right source.
2	GND	-	Ground.	18	IBR	I	Input B right source.
3	OUTLR	O	output left rear.	19	CAP	-	Electronic filtering for supply.
4	OUTLF	O	output left front.	20	ICR	I	Input C right source.
5	TL	I	Treble control capacitor left channel or input from an external equalizer.	21	Vref	-	Reference voltage (0.5Vcc)
6	B2L	-	Bass control capacitor left channel or output to an external equalizer.	22	IDR	-	Not used
7	B1L	-	Bass control capacitor left channel.	23	QSR	O	Output source selector right channel.
8	IVL	I	Input volume 1. left control part.	24	ILR	I	Input loudness right channel.
9	ILL	I	Input loudness. left control part.	25	IVR	I	Input volume 1. right control part.
10	QSL	O	Output source selector. left channel.	26	B1R	-	Bass control capacitor right channel
11	IDL	-	Not used	27	B2R	O	Bass control capacitor right channel or output to an external equalizer.
12	MUTE	-	Not used	28	TR	I	Treble control capacitor right channel or input from an external equalizer.
13	ICL	I	Input C left source.	29	OUTRF	O	Output right front.
14	IMO	-	Not used	30	OUTRR	O	Output right rear.
15	IBL	I	Input B left source.	31	Vcc	-	Supply voltage.
16	IAL	I	Input A left source.	32	SCL	I	Serial clock input.

■HA13158A (IC941) : Power amp

1. Pin layout

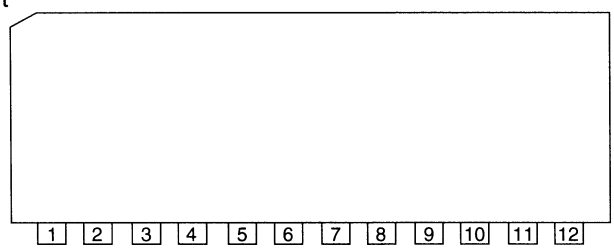


2. Block diagram

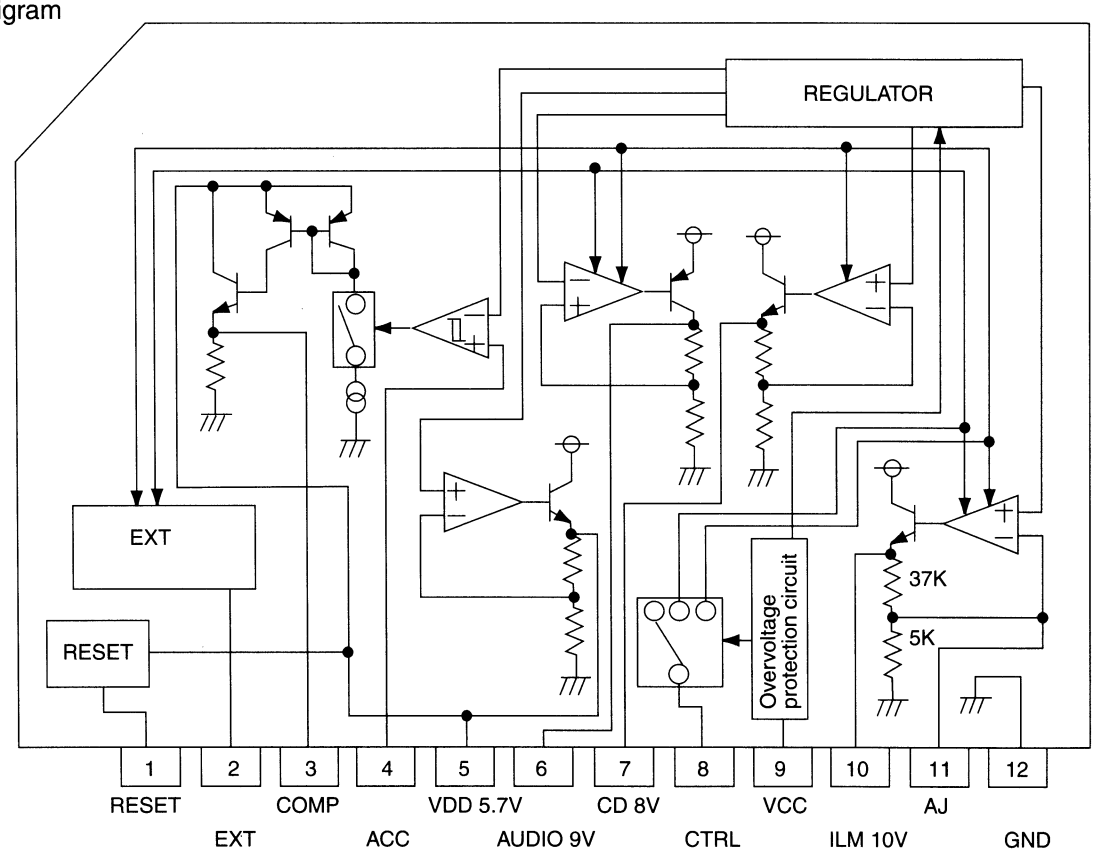


■BA4905-V3 (IC961) : Regulator

1.Terminal layout



2.Block daigram

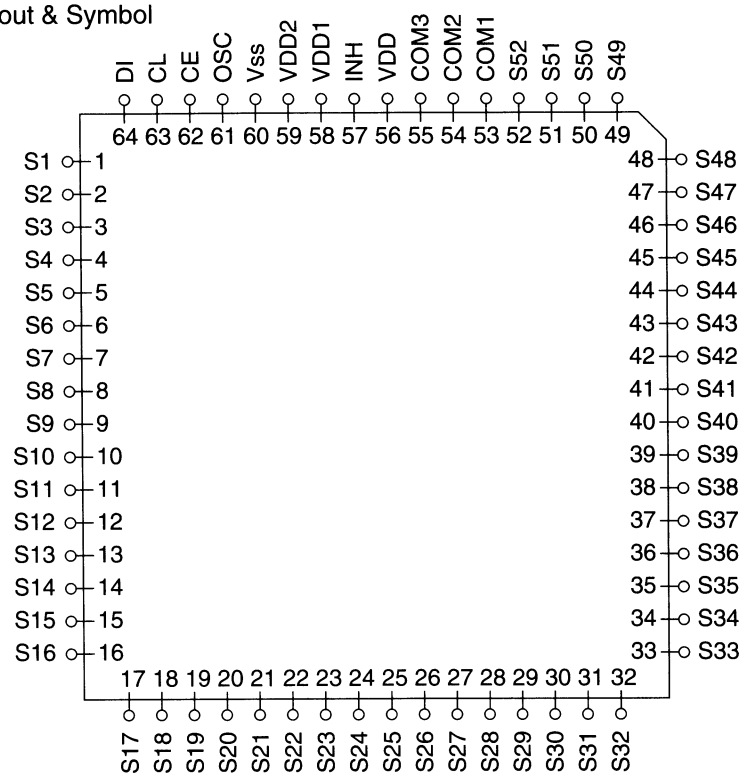


3.Pin function

Pin no.	Symbol	Function
1	RESET	If VDD voltage becomes 4V or less.RESET output becomes low level.
2	EXT output	This output voltage is approximately 0.5V lower than VCC. and max output current is 300mA.
3	COMP output	A voltage supply for ACC block. This output voltage is approximately 0.7V lower than VDD'S. The max output current is 100mA.
4	ACC	Control of the COMP output by inputting voltage.
5	VDD output	This output voltage is 5.7V, and max output current is 100mA. This voltage supply is for microcomputer. Whenever back up voltage supply is connected, the output keeps on running.
6	AUDIO output	This output voltage is 9.0v, and max output current is 500mA. This voltage supply for AUDIO.
7	CD output	This output voltage is 8.0V, and max output current is 1A. This voltage supply for CD.
8	CTRL	Output selector of CD. AUDIO, ILM and EXT.
9	VCC	To be connected with the BACK UP of car.
10	ILM output	This output voltage is 10V, and max output current is 500mA. Output voltage is adjustable.
11	AJ	Putting a resistance between ILM and AJ or between AJ and GND makes ILM output voltage adjustable.
12	GND	Ground.

■LC75823E (IC651) : LCD Driver

1. Pin Layout & Symbol

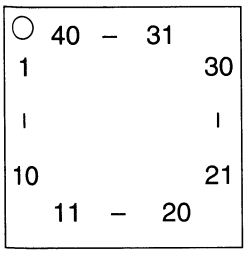


2. Pin Function

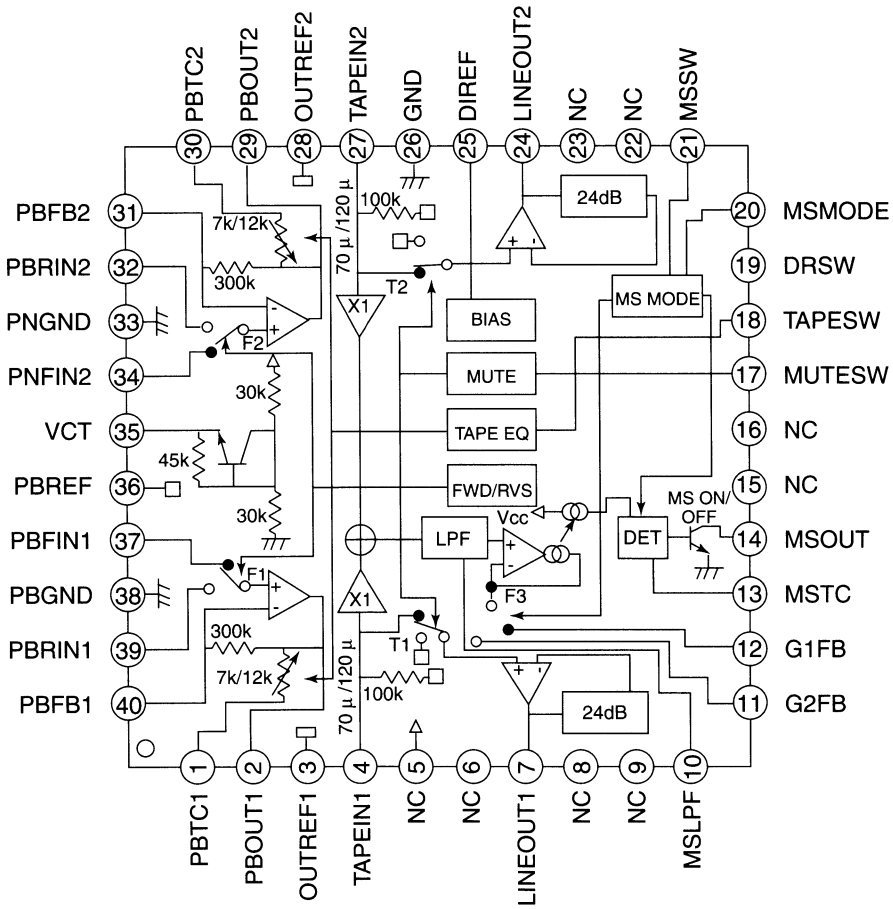
Pin No.	Symbol	I/O	Function
1 to 52	S1 to S52	O	Segment output pins used to display data transferred by serial data input.
53 to 55	COM1 to COM3	O	Common driver output pins. The frame frequency is given by : t0=(fosc/384)Hz.
56	VDD	--	Power supply connection. Provide a voltage of between 4.5 and 6.0V.
57	$\overline{INH}$	I	Display turning off input pin. $\overline{INT}$="L" (Vss) ----- off (S1 to S52, COM1 to COM3="L" $\overline{INT}$="H" (VDD)----- on Serial data can be transferred in display off mode.
58	VDDD1	I	Used for applying the LCD drive 2/3 bias voltage externally. Must be connected to VDD2 when a 1/2 bias drive scheme is used.
59	VDD2	I	Used for applying the LCD drive 1/3 bias voltage externally. Must be connected to VDD1 when a 1/2 bias drive scheme is used.
60	Vss	--	Power supply connection. Connect to GND.
61	OSC	I/O	Oscillator connection. An oscillator circuit is formed by connecting an external resistor and capacitor at this pin.
62 63 64	CE CL DI	I	Serial data interface connection to the controller. CE : Chip enable CL : Sync clock DI : Transfer data

■CXA2559Q (IC401) : Playback equalizer amplifier with music sensor

1.Pin layout



2.Blockdiagram



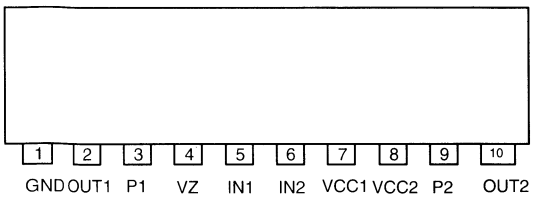
3.Pin function

CXA2559Q 2/2

Pin No.	Symbol	I/O	Function
1	PBTC1	-	Terminal of capacity of reproduction equalizer reproduction
2	PBOUT1	O	Equalizer output terminal
3	OUTREF1	O	Output standard terminal
4	TAPEIN1	I	Tape input terminal
5	Vcc	-	Power supply terminal
6	NC	-	Non connection
7	LINEOUT1	O	Line-out output terminal
8	NC	-	Non connection
9	NC	-	Non connection
10	MSLPF	-	Detection LPF terminal between tunes
11	G2FB	-	Detection level set terminal between tunes
12	GI1FB	-	Detection level set terminal between tunes
13	MSTC	-	Time constant connection terminal for the detection between tunes
14	MSOUT	O	Detection output terminal between tunes
15	NC	-	Non connection
16	NC	-	Non connection
17	MUTESW	I	Mute function control terminal
18	TAPESW	I	Reproduction equalizer control terminal
19	DRSW	I	Head change control terminal
20	MSMODE	I	Detection mode control terminal between tunes
21	MSSW	I	Detection function control terminal between tunes
22	NC	-	Non connection
23	NC	-	Non connection
24	LINEOUT2	O	Line-out output terminal
25	DIREF	-	Resistance connection terminal for standard current setting
26	GND	-	Earth terminal
27	TAPEIN2	I	Tape input terminal
28	OUTREF2	O	Output standard terminal
29	PBOUT2	O	Reproduction equalizer output terminal
30	PBTC2	-	Terminal of capacity of reproduction equalizer
31	PBFB2	I	Reproduction equalizer return terminal
32	PNRIN2	I	Reproduction equalizer input terminal
33	PBGND	-	Reproduction equalizer system earth terminal
34	PBFIN2	I	Reproduction equalizer input terminal
35	VCT	O	Middle point terminal
36	PBREF	O	Reproduction equalizer standard terminal
37	PBFIN1	I	Reproduction equalizer input terminal
38	PBGND	-	Reproduction equalizer system earth terminal
39	PBRIN1	I	Reproduction equalizer input terminal
40	PBFB1	I	Reproduction equalizer return terminal

■LB1641 (IC402) : DC Motor driver

1. Pin Layout

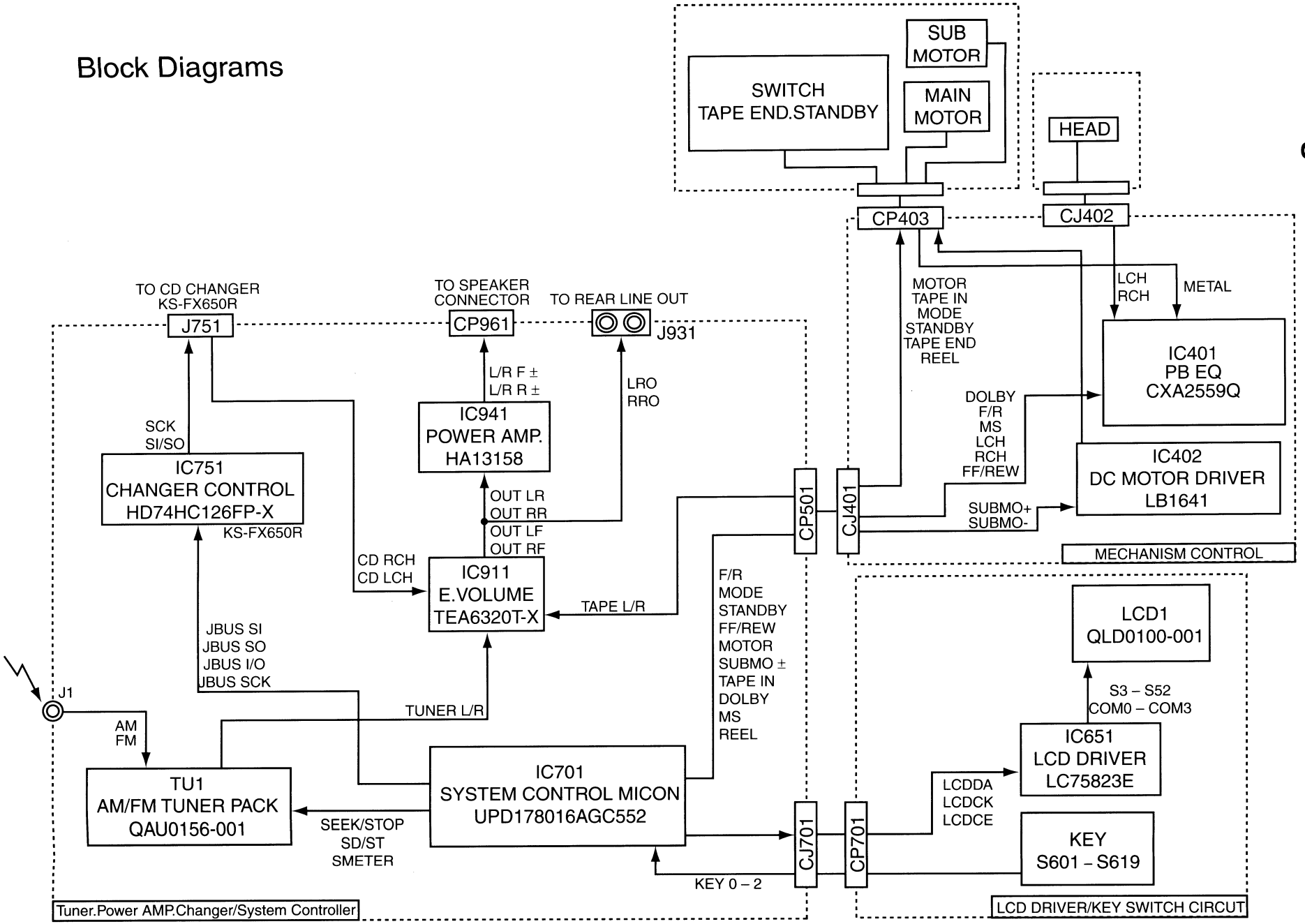


2. Pin Functions

Input		Output		Mode
IN1	IN2	OUT1	OUT2	
0	0	0	0	Brake
1	0	1	0	CLOCKWISE
0	1	0	1	COUNTER-CLOCKWISE
1	1	0	0	Brake

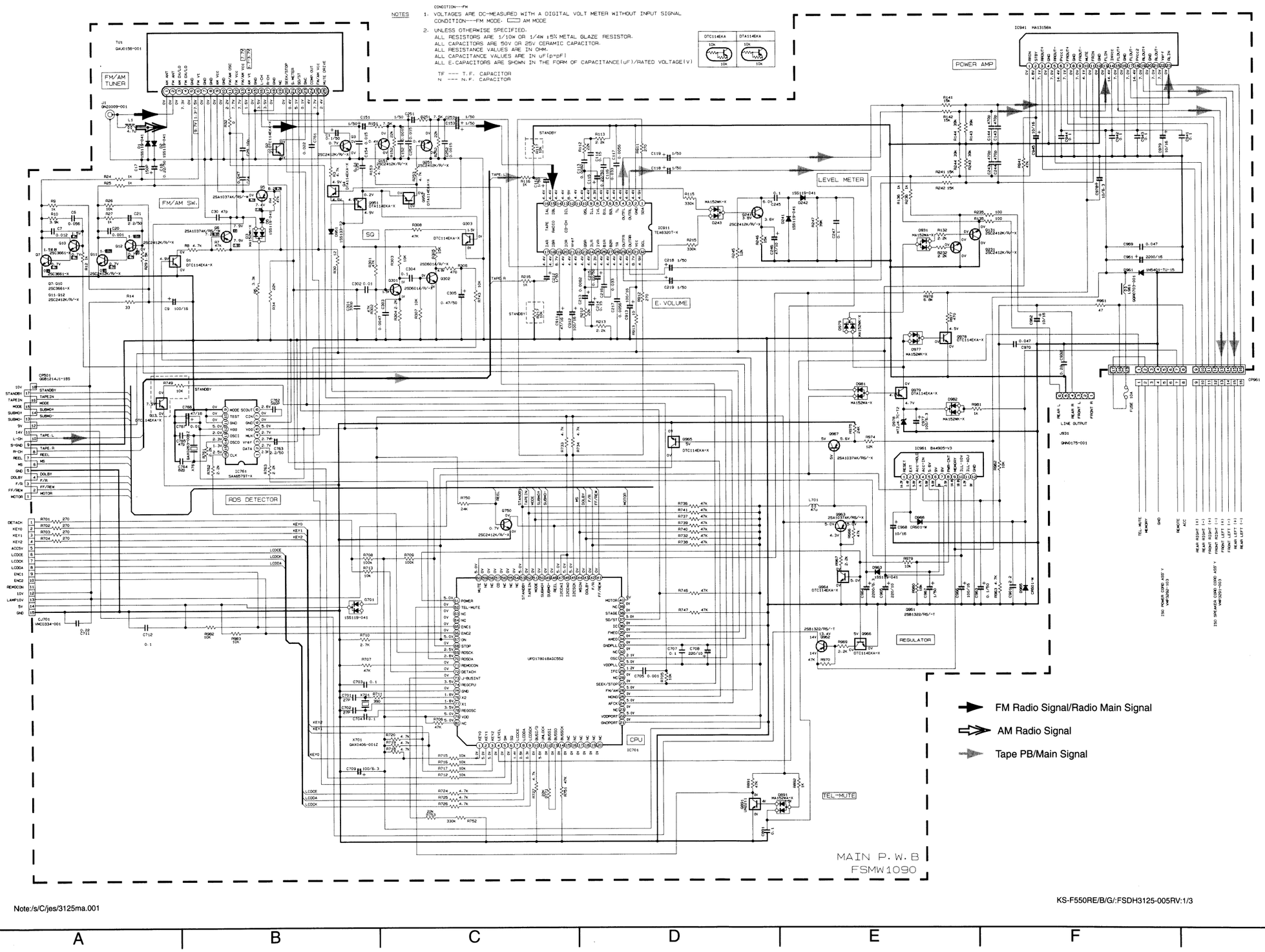
Block Diagrams

Block Diagram



Standard Schematic Diagrams

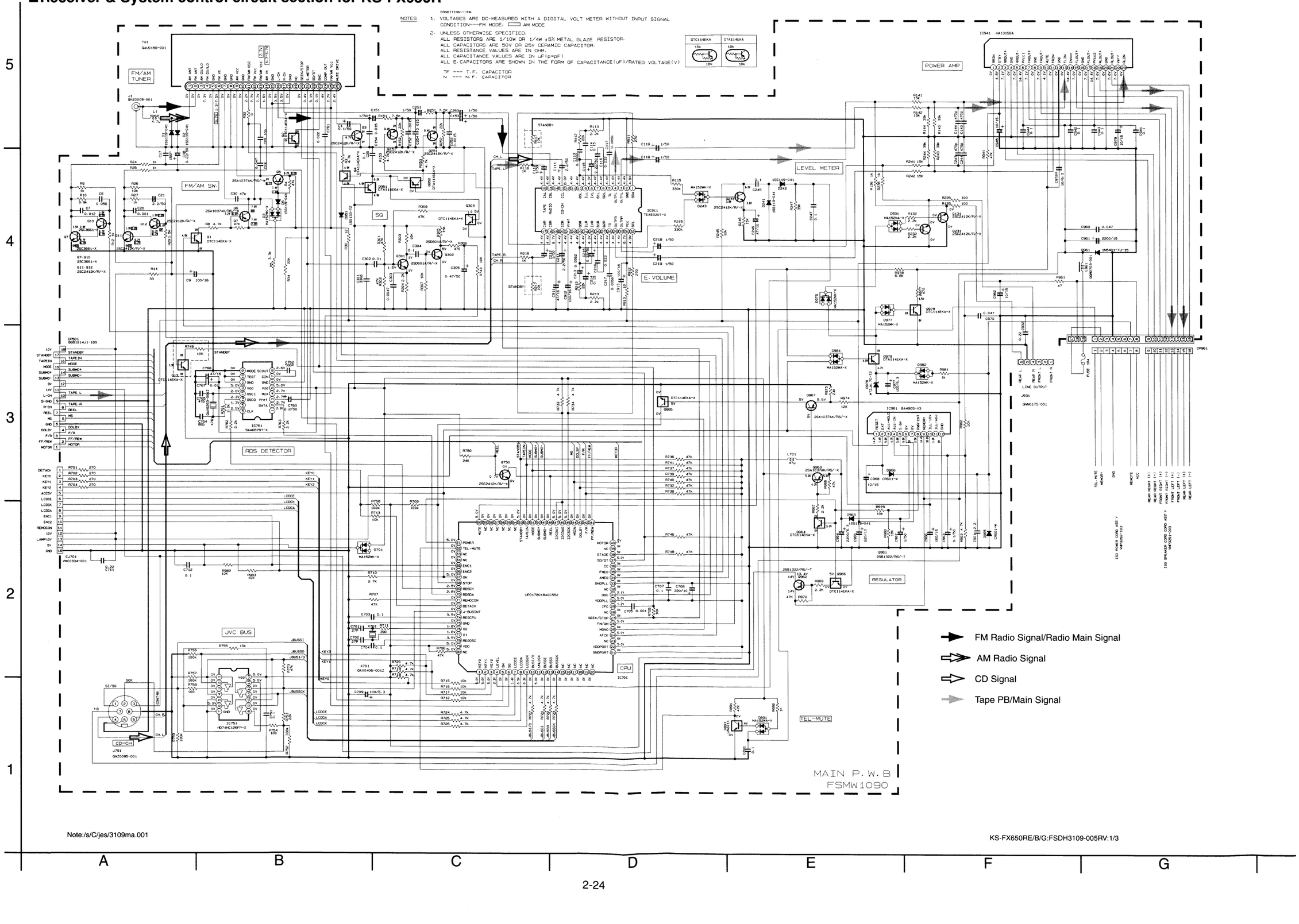
■Receiver & System control circuit section for KS-F550R



Note:/s/C/jes/3125ma.001

KS-F550RE/B/G/:FSDH3125-005RV:1/3

■Receiver & System control circuit section for KS-FX650R

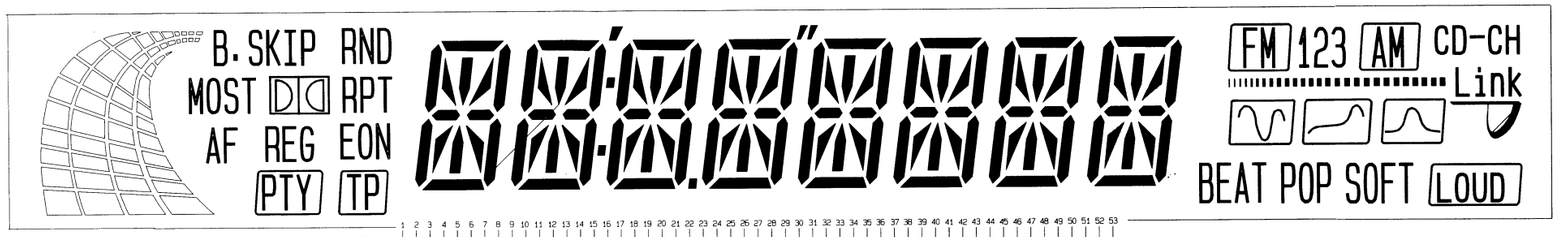


Note:/s/C/jes/3109ma.001

KS-FX650RE/B/G:FSDH3109-005RV:1/3

■LCD driver & Operation switch circuit section

NOTES
1. VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLT METER WITHOUT INPUT SIGNAL.
   CONDITION — — — FM MODE
2. UNLESS OTHERWISE SPECIFIED.
   ALL RESISTORS ARE 1/4W 5% CARBON RESISTOR OR 1/4W, 1/10W 5% METAL GLAZE RESISTOR.
   ALL CAPACITORS ARE 50V CERAMIC CAPACITOR.
   ALL RESISTANCE VALUES ARE IN OHM(Ω).
   ALL CAPACITANCE VALUES ARE IN μF(P=pF).
   ALL E.CAPACITORS ARE SHOWN IN THE FORM OF CAPACITANCE(μF) / RATED VOLTAGE(V).



LCD1
GLD0100-001

CP701
VMC0335-001

IC651
LC75823E

IC652
RPM6938-SV4

JS601
QSW0793-001

REFNAME	PARTS NAME
D601	SML-310LT/MN/-X
D602-D627	LNJ308G81/1-3/X

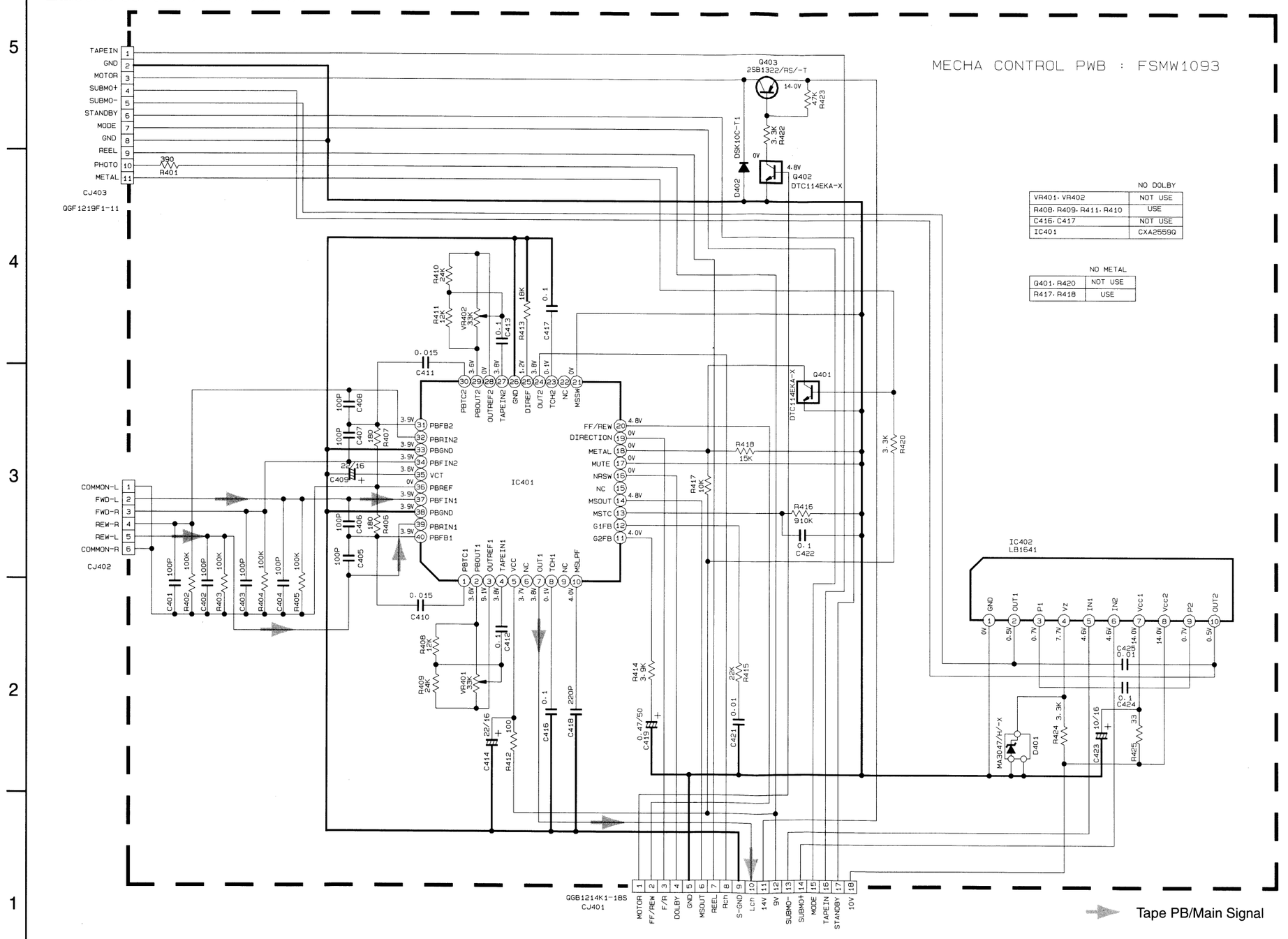
STANDBY

SW P.W.B. FSMW1078

KS-FX650RE:FSDH3109SW:2/3

Note:/s/C/jes/3109sw.001

■Mecha control circuit section



NO DOLBY	
VR401, VR402	NOT USE
R408, R409, R411, R410	USE
C416, C417	NOT USE
IC401	CXA2559Q

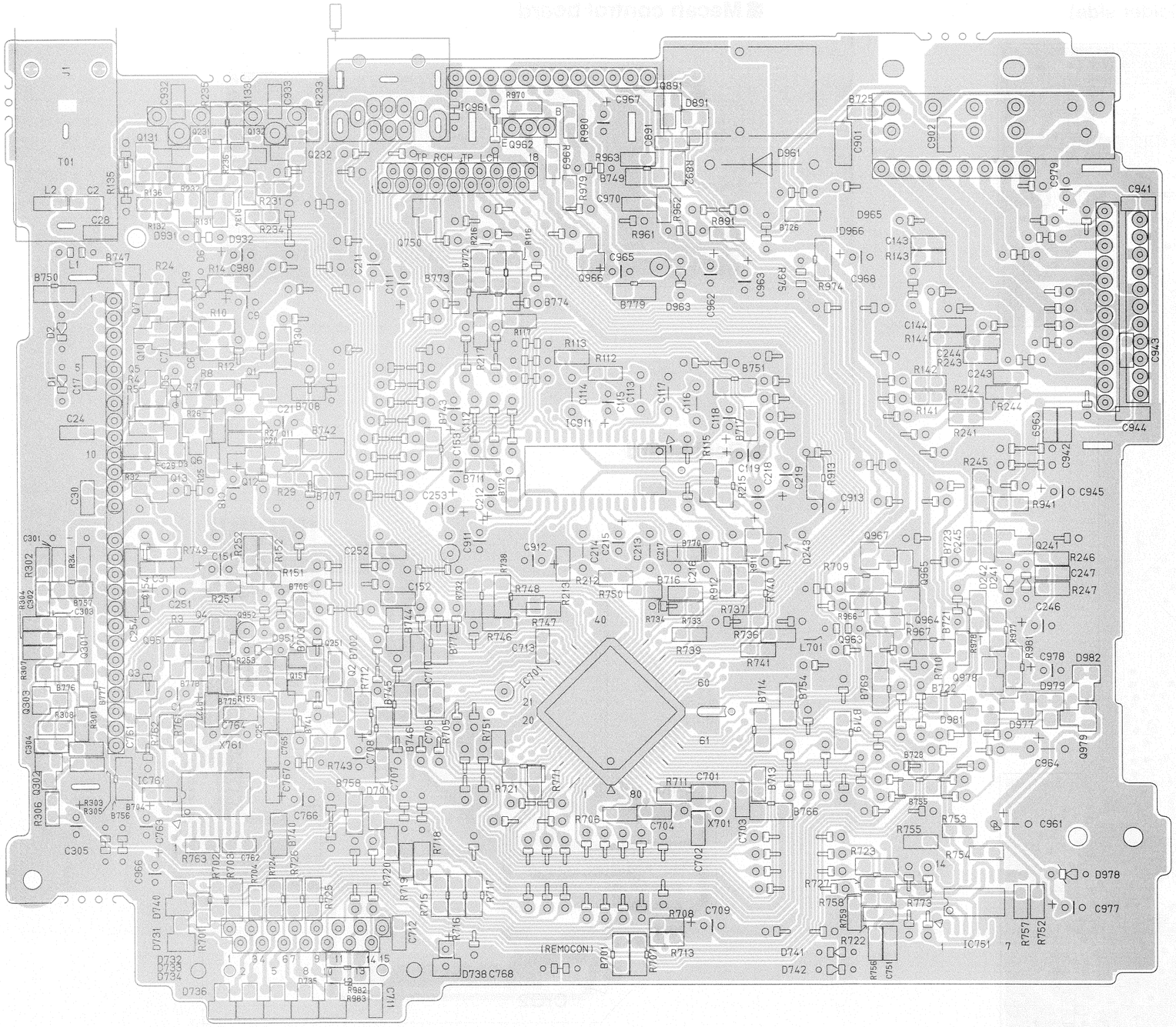
NO METAL	
Q401, R420	NOT USE
R417, R418	USE

Note:/s/C/jes/3109me.001

KS-FX650RE:FSDH3109MW:3/3

Printed Circuit Boards

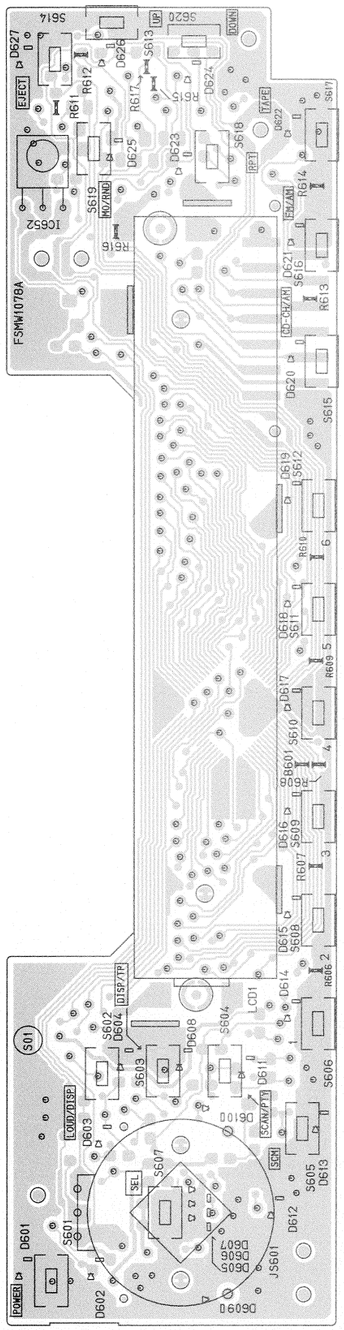
■ Main boards : No. 0 1



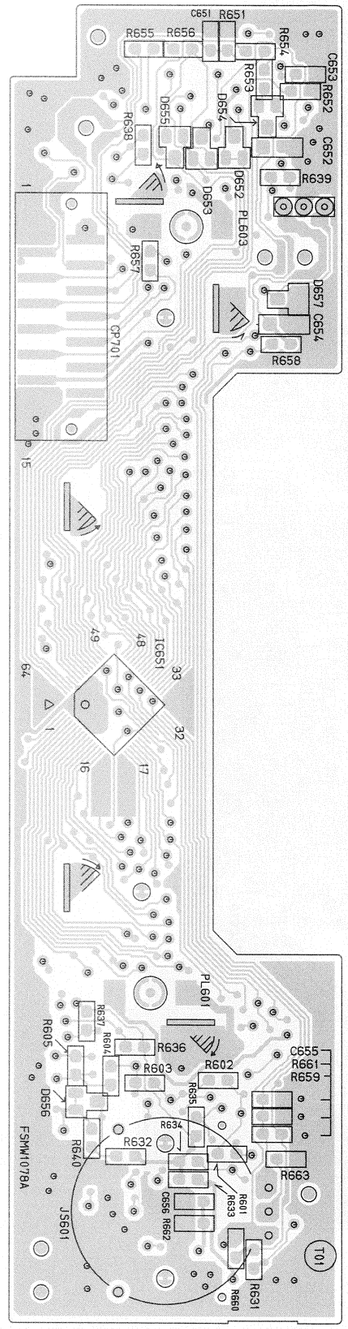
Note:/d2/c/jes/fsmw/001/1090mo

■Switch board : No. 0 2

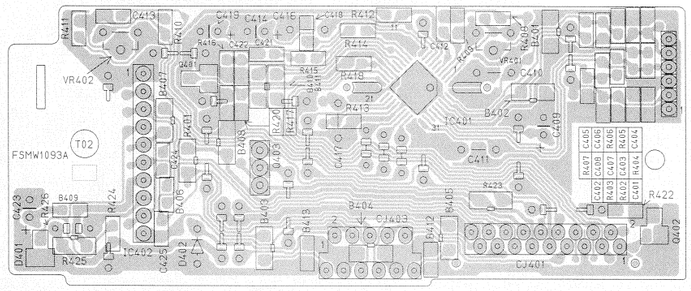
(Parts side)



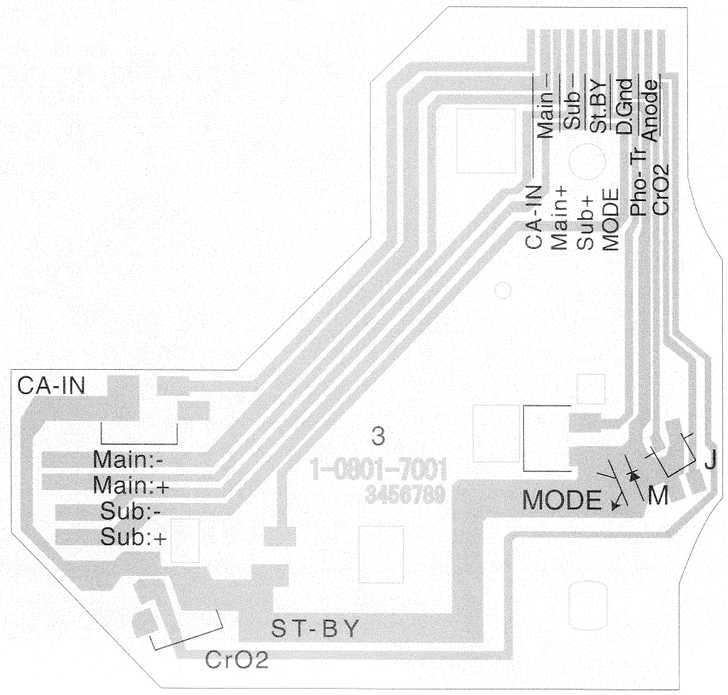
(Solder side)



■ Mecah control board



■ Reel board



PARTS LIST

[KS-FX650R]
[KS-F550R]

* All printed circuit boards and its assemblies are not available as service parts.

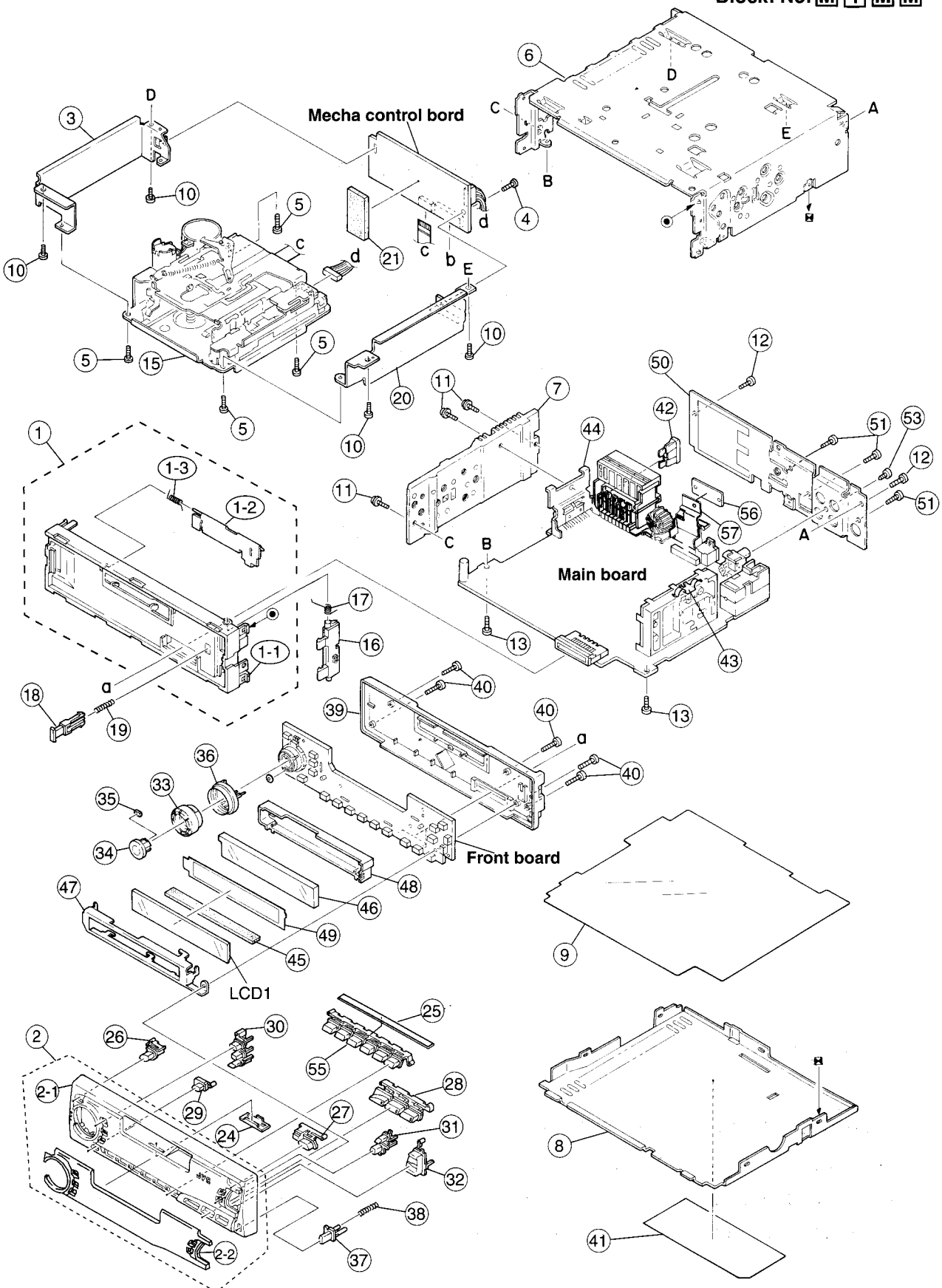
Area Suffix
E ..... Continental Europe

- Contents -

Exploded view of general assembly and parts list ---------- 3 - 2
Cassette mechanism assembly and parts list ---------- 3 - 5
Electrical parts list ---------- 3 - 9
Packing materials and accessories parts list ---------- 3 - 14

Exploded view of general assembly and parts list

Block: No. M 1 M M



■Parts list (General assembly)

Block No. M1MM

⚠	Item	Parts number	Parts name	Q'ty	Description	Area
	1	ZCKSFX250J-FB	FRONT ASS'Y	1	KS-FX650R	
		ZCKSF550R-FB	FRONT ASS'Y	1	KS-F550R	
	1-1	FSJC1052-001	FRONT CHASSIS	1		
	1-2	FSJC3014-003	CASSETTE LID	1	KS-FX650R	
		FSJC3014-002	CASSETTE LID	1	KS-F550R	
	1-3	VKW4947-002	DOOR SPRING	1		
	2	ZCKSFX650R-NPA	FRONT PANEL ASS	1	KS-FX650R	
		ZCKSF550R-NPA	FRONT PANEL ASS	1	KS-F550R	
	2-1	FSJC1050-002	FRONT PANEL	1		
	2-2	FSJD3020-01B	FINDER ASSY	1	KS-FX650R	
		FSJD3020-01C	FINDER LENS	1	KS-F550R	
	3	FSKL2001-001	MECHA BKT (L)	1		
	4	QYSDST2606Z	SCREW	1	PCB+MECHA	
	5	QYSDST2606Z	SCREW	4	MECHA+M.BKT	
	6	FSJC1056-002	TOP CHASSIS	1		
	7	FSMH3001-201	HEAT SINK	1		
	8	FSKM3011-002	BOTTOM COVER	1		
	9	FSMA3004-203	INSULATOR	1		
	10	QYSDST2604Z	SCREW	4	CHASSIS+MECHA B	
	11	FSKZ4005-001	SCREW	3		
	12	QYSDST2606Z	SCREW	2	CHASSIS+REAR BK	
	13	QYSDST2606Z	SCREW	2	CHASSIS+MAIN PW	
	15	----------	CASSETTE MECHA	1	NEW COST DN MEC	
	16	FSKS3010-001	LOCK LEVER	1		
	17	FSKW4005-003	TORSION SPRING	1		
	18	FSXP3026-002	RLS KNOB	1		
	19	FSKW3002-004	COMP.SPRING	1		
	20	FSKL2002-001	MECHA BKT (R)	1	LEFT BKT	
	21	FSYH4036-050	SHEET	1		
	24	FSJK3014-001	LIGHT LENS	1		
	25	FSYH4036-031	BUTTON SHEET	1		
	26	FSXP3053-002	POWER BUTTON	1		
	27	FSXP3064-001	EJECT BUTTON	1		
	28	FSXP2038-001	DFUNC.BUTTON	1	KS-FX650R	
		FSXP2038-004	DFUNC.BUTTON	1	KS-F550R	
	29	FSXP4006-001	SCM BUTTON	1		
	30	FSXP2041-003	PUSH BUTTON(L)	1		
	31	FSXP3062-001	PUSH BUTTON(R)	1	KS-FX650R	
		FSXP3062-003	PUSH BUTTON(R)	1	KS-F550R	
	32	FSXP2043-001	UP DOWN BBUTTON	1		
	33	FSXK3003-005	VOLUME KNOB	1		
	34	FSXP3061-001	SELECT BUTTON	1		
	35	FSYH4036-032	BLIND SHEET	1		
	36	FSJK3027-001	RIM LENS	1		
	37	FSXP3063-001	DETACH BUTTON	1		
	38	FSKW3002-012	COMP. SPRING	1	FOR DETACH BUTT	
	39	FSJC1051-001	REAR COVER	1		
	40	VKZ4777-001	MINI SCREW	5	F.PANEL+REAR CO	
	41	FSYN3109-D005	NAME PLATE	1	KS-FX650R	
		FSYN3125-D005	NAME PLATE	1	KS-F550R	

■Parts list (General assembly)

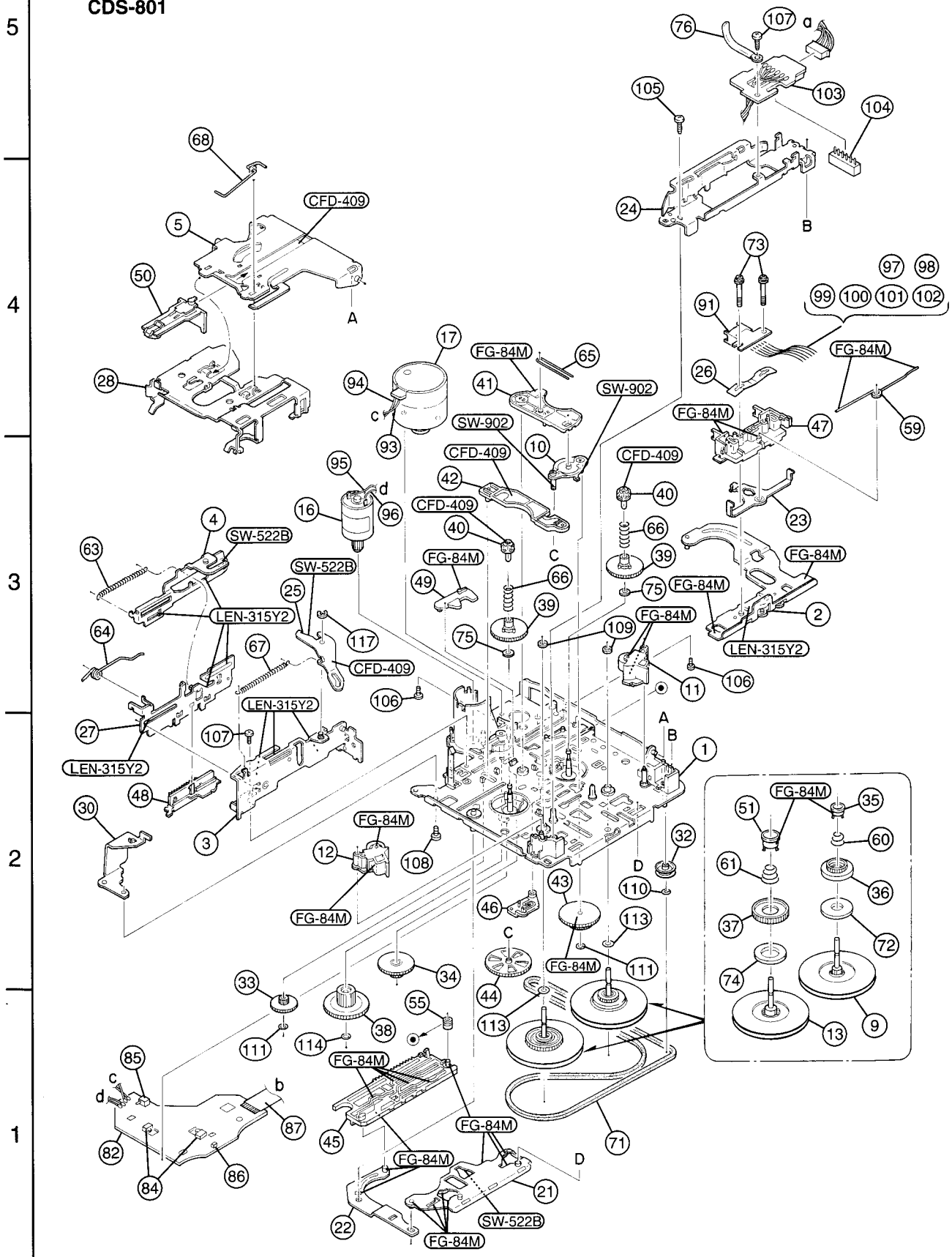
Block No. M1MM

⚠	Item	Parts number	Parts name	Q'ty	Description	Area
⚠	42	QMFZ021-100-J1	FUSE	1		
	43	VMA4652-001SS	EARTH PLATE	1		
	44	FSKL4018-00B	P.W.B.BRACKET	1		
	45	QNZ0440-001	RUBB.CONNECTOR	1		
	46	FSJK3033-001	L.C.D.LENS	1		
	47	FSYH3021-001	L.C.D.CASE	1		
	48	FSKS3020-001	LENS CASE	1		
	49	FSYH4075-001	BLIND SHEET	1		
	50	FSKM3012-011	REAR BRACKET	1	KS-FX650R	
		FSKM3012-012	REAR BRACKET	1	KS-F550R	
	51	QYSDST2606Z	SCREW	3		
	53	QYSDSF3006Z	SCREW	1	PIN	
	55	FSXP2045-002	PRESET BUTTON	1	1-6	
	56	FSKL4014-002	HEAT SINK	1		
	57	FSKL4023-001	REG.BRACKET	1		
	LCD1	QLD0100-001	L.C.DISPL PANEL	1		

Cassette mechanism assembly and parts list

Block: No. M 2 M M

CDS-801



■Parts list (Cassette mechanism)

Block No. M2MM

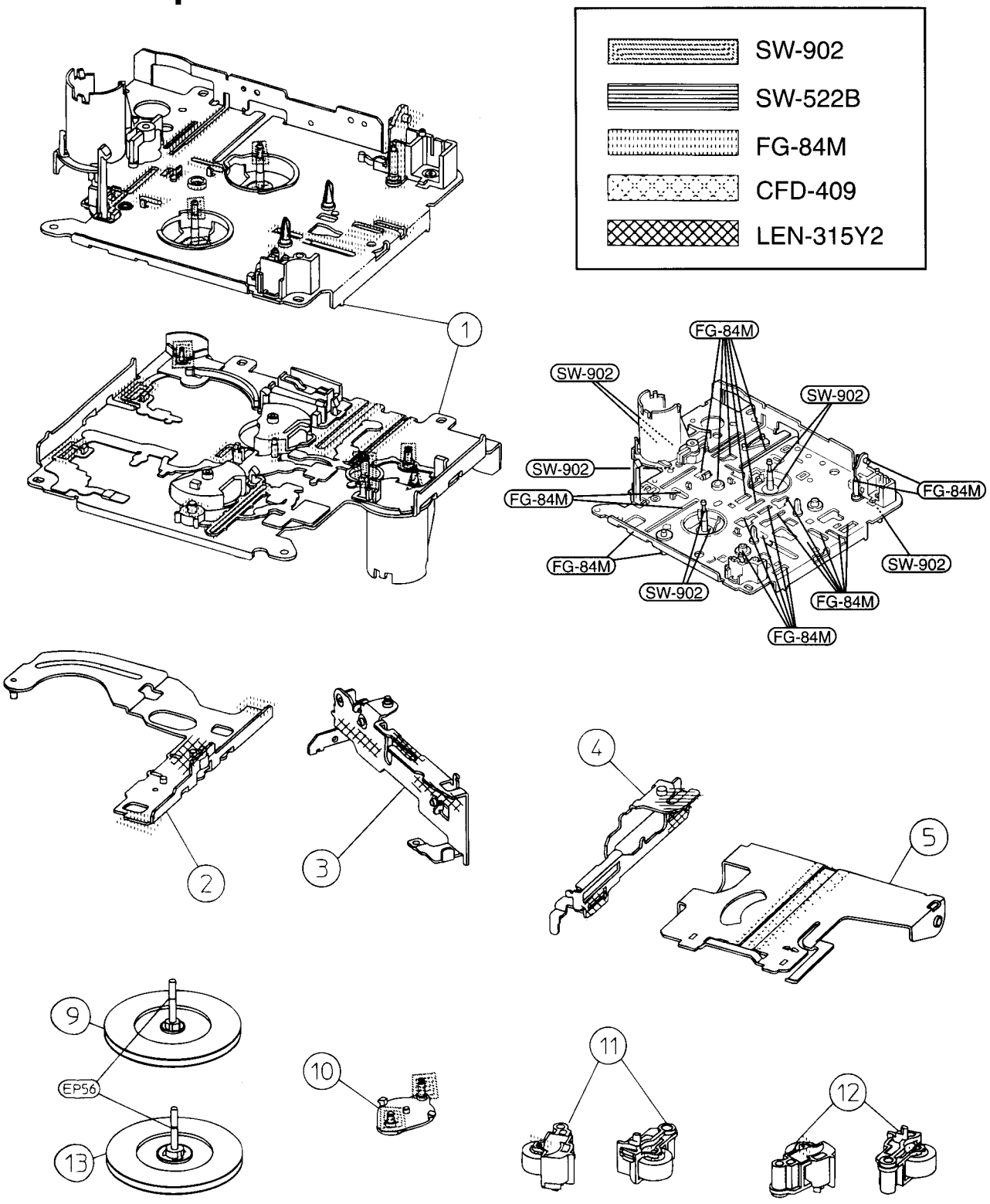
⚠	Item	Parts number	Parts name	Q'ty	Description	Area
	1	X-0801-1003S	MAIN CHASSIS AS	1		
	2	X-0801-1002S	SLIDE CHASSIS A	1		
	3	X-0801-1008S	SIDE BKT ASS'Y	1		
	4	X-0801-1010S	EJECT CAM LIMIT	1		
	5	X-0801-1013S	CASSETTE HANGER	1		
	9	1-0801-6002S	FLYWHEEL ASSY F	1		
	10	X-0801-2003S	GEAR BASE ASS'Y	1		
	11	X-0801-2021S	PINCH ARM F ASS	1		
	12	X-0801-2022S	PINCH ARM R ASS	1		
	13	1-0801-6003S	FLYWHEEL ASSY R	1		
	16	X-0801-7006S	SUB MOTOR ASS'Y	1		
	17	X-0801-7057S	MAIN MOTOR ASSY	1		
	21	1-0801-1003S	DIRECTION PLATE	1		
	22	1-0801-1004S	DIRECTION LINK	1		
	23	1-0801-1005S	PINCH SPG ARM	1		
	24	1-0801-1006S	CASSETTE GUIDE	1		
	25	1-0801-1007S	LOAD ARM	1		
	26	1-0801-1009S	HEAD SUPT SPG	1		
	27	1-0801-1011S	EJECT CAM PLATE	1		
	28	1-0801-1012S	CASSETTE HOLDER	1		
	30	1-0801-1020S	REINFORCE BRKT	1		
	32	1-0101-2056S	IDLE PULLEY(A1)	1		
	33	1-0801-2004S	REDUCTION GEARA	1		
	34	1-0801-2005S	REDUCTION GEARB	1		
	35	1-0801-2006S	SPG HOLDER F	1		
	36	1-0801-2007S	FRICTION GEARPL	1		
	37	1-0801-2008S	FRICTION GEARFF	1		
	38	1-0801-2009S	MODE GEAR	1		
	39	1-0801-2010S	REEL SPINDLE	2		
	40	1-0801-2011S	REEL DRIVER	2		
	41	1-0801-2014S	GEAR BASE ARM	1		
	42	1-0801-2015S	GEAR BASE LINK	1		
	43	1-0801-2016S	TAKE UP GEAR	1		
	44	1-0801-2017S	REFLECTOR GEAR	1		
	45	1-0801-2018S	MODE RACK	1		
	46	1-0801-2019S	MODE SW ACTUATR	1		
	47	1-0801-2020S	TAPE GUIDE	1		
	48	1-0801-2023S	LOAD RACK	1		
	49	1-0801-2024S	RACK LINK	1		
	50	1-0801-2025S	CASSETTE CATCH	1		
	51	1-0801-2030S	SPG HOLDER R	1		
	55	1-0801-3005S	RACK COLLAR	1		
	59	1-0801-4001S	PINCH ARM SPG	1		
	60	1-0801-4002S	TU SPG	1		
	61	1-0801-4003S	FF SPG	1		
	63	1-0801-4005S	EJECTCAM PLT SP	1		
	64	1-0801-4006S	HOLDER CUSH SPG	1		
	65	1-0801-4007S	GEAR BASE SPG	1		
	66	1-0801-4008S	REEL DRIVER SPG	2		
	67	1-0801-4009S	LOAD ARM SPG	1		
	68	1-0801-4011S	HOLDER STAB SPG	1		
	71	1-0801-5001S	BELT	1		

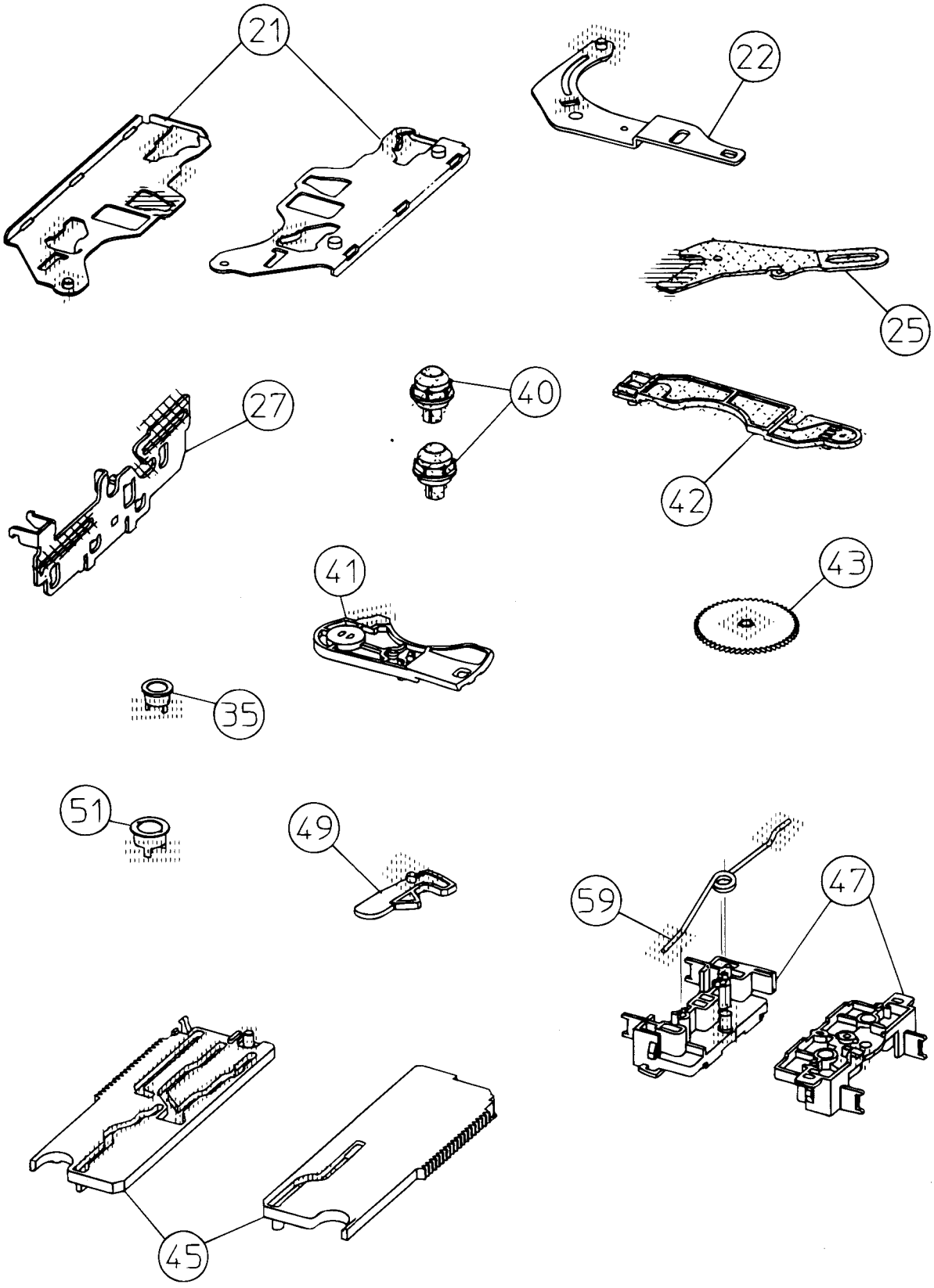
■Parts list (Cassette mechanism)

Block No. M2MM

⚠	Item	Parts number	Parts name	Q'ty	Description	Area
	72	1-0801-5002S	FELT	1	7.5*18.5*1.0	
	73	1-0801-5003S	AZIMUTH SCR	2		
	74	1-0801-5004S	FELT	1	11*18.5*1.0	
	75	1-0801-5005S	REEL WASHER	2		
	76	21732-6280-36S	LUG PLATE	1		
	82	1-0801-7001S	REEL PCB DL	1		
	84	1-0801-7003S	SW(MATSUSHITA)	2	(ESE22MH2L)	
	85	1-0801-7005S	SW	1	(ALPS SPPB64)	
	86	1-0801-7024S	PHOTO SENSOR	1	(ON2170-QR FS)	
	87	1-0801-7026S	FLAT CABLE 10P	1		
	91	1-0801-7014S	HEAD	1	(MITSUMIP-5544)	
	93	10801-7009-0S	M.MOTOR WIRE	1	BLACK	
	94	10801-7009-1S	M.MOTOR WIRE	1	RED	
	95	10801-7010-0S	S.MOTOR WIRE	1	ORANGE	
	96	10801-7010-1S	S.MOTOR WIRE	1	BROWN	
	97	10801-7015-0S	HEAD WIRE BLACK	1		
	98	10801-7015-1S	HEAD WIRE BROWN	1		
	99	10801-7015-2S	HEAD WIRE RED	1		
	100	10801-7015-3S	HEAD WIRE ORANG	1		
	101	10801-7015-4S	HEAD WIRE YELLO	1		
	102	10801-7015-5S	HEAD WIRE WHITE	1		
	103	1-0801-7016S	HEAD PCB	1		
	104	1-0801-7025S	CONN S6B-PH-K-S	1		
	105	21382-3060-C2S	+PLAIN B-TYPE	1	M2.3*6.0	
	106	2-1032-0025-C2S	+SCREW PLAIN	2	M2*2.5	
	107	21332-0035-P1S	S-TYPE PRECISIO	2	M2*3.5	
	108	21112-6035-C2S	+SCREW PLAIN	1	M2.6*3.5	
	109	2-1816-0032-E8S	LMW-S	2	1.6*3.2*0.35	
	110	21812-0032-D2S	PSW-S	1	1.2*3.2*0.25	
	111	1-0036-5024S	PSW-S(REEL B)	2	1.5*3.2*0.25	
	113	2-1821-0040-D1S	PSW	2	2.1*4.0*0.25	
	114	21821-0040-D2S	PSW-S	1	2.1*4.0*0.25	
	117	2-1711-5040-16S	E-RING	1	1.5	

Grease point

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KS-FX650R
KS-F550R

Electrical parts list

■Main board Block No. 01

⚠	Item	Parts number	Parts name	Remaks	Area
	C 1	QERF1HM-104Z	E CAPACITOR	.10MF 20% 50V	
	C 6	NCB21EK-563X	C CAPACITOR		
	C 7	NCB21EK-123X	C CAPACITOR		
	C 9	QERF1CM-107Z	E CAPACITOR	220MF 20% 10V	
	C 17	NCS21HJ-151X	C CAPACITOR		
	C 18	QERF1HM-224Z	E CAPACITOR	.22MF 20% 50V	
	C 20	NCS21HJ-102X	C CAPACITOR		
	C 21	QEQF1HM-225Z	E CAPACITOR	2.2MF 20% 50V	
	C 24	NCB21EK-473X	C CAPACITOR		
	C 25	NCB21EK-104X	C CAPACITOR		
	C 29	NDC21HJ-100X	C CAPACITOR		
	C 30	NDC21HJ-470X	C CAPACITOR		
	C 31	NCS21HJ-101X	C CAPACITOR		
	C 111	QERF1HM-225Z	E CAPACITOR	KS-FX650R	
	C 112	QER41HM-105	E CAPACITOR	1.0MF 20% 50V	
	C 113	QFLA1HJ-822Z	M CAPACITOR	8200PF 5% 50V	
	C 114	QFV61HJ-154Z	TF CAPACITOR	.15MF 5% 50V	
	C 115	QERF1HM-224Z	E CAPACITOR	.22MF 20% 50V	
	C 116	QFV61HJ-333Z	TF CAPACITOR	.033MF 5% 50V	
	C 117	QFLA1HJ-562Z	M CAPACITOR	5600PF 5% 50V	
	C 118	QER41HM-105	E CAPACITOR	1.0MF 20% 50V	
	C 119	QER41HM-105	E CAPACITOR	1.0MF 20% 50V	
	C 143	NCS21HJ-471X	C CAPACITOR		
	C 144	NCS21HJ-471X	C CAPACITOR		
	C 151	QER41HM-105	E CAPACITOR	1.0MF 20% 50V	
	C 152	NCB21HK-122X	C CAPACITOR		
	C 153	QER41HM-105	E CAPACITOR	1.0MF 20% 50V	
	C 154	NCB21HK-153X	C CAPACITOR		
	C 211	QERF1HM-225Z	E CAPACITOR	KS-FX650R	
	C 212	QER41HM-105	E CAPACITOR	1.0MF 20% 50V	
	C 213	QFLA1HJ-822Z	M CAPACITOR	8200PF 5% 50V	
	C 214	QFV61HJ-154Z	TF CAPACITOR	.15MF 5% 50V	
	C 215	QERF1HM-224Z	E CAPACITOR	.22MF 20% 50V	
	C 216	QFV61HJ-333Z	TF CAPACITOR	.033MF 5% 50V	
	C 217	QFLA1HJ-562Z	M CAPACITOR	5600PF 5% 50V	
	C 218	QER41HM-105	E CAPACITOR	1.0MF 20% 50V	
	C 219	QER41HM-105	E CAPACITOR	1.0MF 20% 50V	
	C 243	NCS21HJ-471X	C CAPACITOR		
	C 244	NCS21HJ-471X	C CAPACITOR		
	C 245	NCB21EK-104X	C CAPACITOR		
	C 246	QERF1AM-476Z	E CAPACITOR	47MF 20% 10V	
	C 247	NCB21EK-104X	C CAPACITOR		
	C 251	QER41HM-105	E CAPACITOR	1.0MF 20% 50V	
	C 252	NCB21HK-122X	C CAPACITOR		
	C 253	QER41HM-105	E CAPACITOR	1.0MF 20% 50V	
	C 254	NCB21HK-153X	C CAPACITOR		
	C 301	NCB21HK-331X	C.CAPA. C.M	SQ USE	
	C 302	NCB21HK-103X	C CAPACITOR	SQ USE	
	C 303	NCB21EK-472X	C CAPACITOR	MARKET CLAIM	
	C 304	NCB21EK-104X	C CAPACITOR	SQ USE	
	C 305	QERF1HM-474Z	E CAPACITOR	SQ USE	
	C 701	NDC21HJ-270X	C CAPACITOR		
	C 702	NDC21HJ-270X	C CAPACITOR		
	C 703	NCB21EK-104X	C CAPACITOR		
	C 704	NCB21EK-104X	C CAPACITOR		
	C 705	NCB21HK-102X	C CAPACITOR		
	C 707	NCB21EK-104X	C CAPACITOR		
	C 708	QER41AM-227	E CAPACITOR	220MF 20% 10V	
	C 709	QERF0JM-107Z	E CAPACITOR	100MF 20% 6.3V	
	C 710	NCS21HJ-121X	C CAPACITOR		
	C 711	NCB21CK-224X	C CAPACITOR		
	C 712	NCB21HK-104X	C CAPACITOR		
	C 713	NCS21HJ-121X	C CAPACITOR		
	C 751	NCB21EK-104X	C CAPACITOR	KS-FX650R	
	C 761	NCB21EK-223X	C CAPACITOR		
	C 762	NCS21HJ-561X	C CAPACITOR		
	C 763	QERF1HM-225Z	E CAPACITOR	2.2MF 20% 50V	
	C 764	NDC21HJ-820X	C CAPACITOR		
	C 765	NDC21HJ-470X	C CAPACITOR		
	C 766	QER41CM-476	E CAPACITOR	47MF 20% 16V	
	C 767	NCB21HK-103X	C CAPACITOR		
	C 891	NCB21EK-104X	C CAPACITOR		
	C 901	NCB11CK-225X	C CAPACITOR		

⚠	Item	Parts number	Parts name	Remaks	Area
	C 911	QER41CM-476	E CAPACITOR	47MF 20% 16V	
	C 912	QERF1CM-107Z	E CAPACITOR	100MF 20% 16V	
	C 913	QERF1CM-107Z	E CAPACITOR	100MF 20% 16V	
	C 932	NCB21EK-104X	C CAPACITOR		
	C 941	NCB21EK-104X	C CAPACITOR		
	C 942	NCB21EK-104X	C CAPACITOR		
	C 943	NCB21EK-104X	C CAPACITOR		
	C 944	NCB21EK-104X	C CAPACITOR		
	C 945	QER41CM-106	E CAPACITOR	10MF 20% 16V	
	C 961	QETB1CM-228	E CAPACITOR	2200MF 20% 16V	
	C 962	QER41CM-106	E CAPACITOR	10MF 20% 16V	
	C 963	QERF1HM-104Z	E CAPACITOR	.10MF 20% 50V	
	C 964	QETN0JM-228Z	E CAPACITOR	2200MF 20% 6.3V	
	C 965	QER41AM-227	E CAPACITOR	220MF 20% 10V	
	C 966	QERF1CM-107Z	E CAPACITOR	100MF 20% 16V	
	C 967	QER41HM-105	E CAPACITOR	1.0MF 20% 50V	
	C 968	QER41CM-106	E CAPACITOR	10MF 20% 16V	
	C 969	NCB21EK-473X	C CAPACITOR		
	C 970	NCB21EK-473X	C CAPACITOR		
	C 977	QERF0JM-107Z	E CAPACITOR	100MF 20% 6.3V	
	C 978	QERF1AM-106Z	E CAPACITOR	10MF 20% 10V	
	C 979	QER41CM-106	E CAPACITOR	10MF 20% 16V	
	CJ701	VMC0334-001	CONNECTOR		
	CP50	QGB1214J1-18S	CONNECTOR		
	CP96	QNZ0112-001	CAR CONNECTOR		
	D 1	1SS119-041	SI DIODE		
	D 2	1SS119-041	SI DIODE		
	D 3	MA152WK-X	SI DIODE		
	D 5	1SS119-041	SI DIODE		
	D 6	MTZJ9.1C-T2	Z DIODE I/M		
	D 241	1SS119-041	SI DIODE		
	D 242	1SS119-041	SI DIODE		
	D 243	MA152WK-X	SI DIODE		
	D 701	MA152WK-X	SI DIODE		
	D 741	1SS119-041	SI DIODE		
	D 742	1SS119-041	SI DIODE		
	D 891	MA152WA-X	DIODE		
	D 931	MA152WA-X	DIODE		
	D 951	1SS133-T2	SI DIODE		
	D 961	1N5401-TU-15	DIODE		
	D 963	1SS119-041	SI DIODE		
	D 965	CRS03-W	SB DIODE		
	D 966	CRS03-W	SB DIODE		
	D 977	MA152WK-X	SI DIODE		
	D 978	MTZJ4.7C-T2	Z.DIODE I.M		
	D 979	MA152WK-X	SI DIODE		
	D 981	MA152WA-X	DIODE		
	D 982	MA152WK-X	SI DIODE		
	IC701	UPD178018AGC552	IC		
	IC751	HD74HC126FP-X	IC	KS-FX650R	
	IC761	SAA6579T-X	IC		
	IC911	TEA6320T-X	IC		
	IC941	HA13158A	IC		
	IC961	BA4905-V3	IC		
	J 1	QNZ0009-001	CAR ANT JACK		
	J 751	QNZ0095-001	CONNECTOR	KS-FX650R	
	J 931	QNN0170-001	PIN JACK (REEL)		
	L 1	QQL231K-4R7Y	INDUCTOR		
	L 701	QQL231K-470Y	INDUCTOR		
	L 961	QQR0703-001	CHOKE COIL		
	Q 1	DTC114EKA-X	TR		
	Q 2	DTC114EKA-X	TR		
	Q 3	2SC2412K/R/-X	TRANSISTOR		
	Q 4	DTA114EKA-X	DIGITAL.TRANSIS		
	Q 5	2SA1037AK/RS/-X	TRANSISTOR		
	Q 6	2SA1037AK/RS/-X	TRANSISTOR		
	Q 7	2SC3661-X	TRANSISTOR		
	Q 10	2SC3661-X	TRANSISTOR		
	Q 11	2SC2412K/R/-X	TRANSISTOR		
	Q 12	2SC2412K/R/-X	TRANSISTOR		
	Q 131	2SC2412K/R/-X	TRANSISTOR		
	Q 151	2SC2412K/R/-X	TRANSISTOR		
	Q 231	2SC2412K/R/-X	TRANSISTOR		

■Main board Block No. 01

⚠	Item	Parts number	Parts name	Remaks	Area
	Q 241	2SC2412K/R/-X	TRANSISTOR		
	Q 251	2SC2412K/R/-X	TRANSISTOR		
	Q 301	2SD601A/R/-X	TRANSISTOR	SQ USE	
	Q 302	2SD601A/R/-X	TRANSISTOR	SQ USE	
	Q 303	DTC114EKA-X	TR		
	Q 750	2SC2412K/R/-X	SI.TRANSISTOR		
	Q 891	UN2211-X	TRANSISTOR		
	Q 951	DTA114EKA-X	DIGITAL.TRANSIS		
	Q 952	DTA114EKA-X	DIGITAL.TRANSIS		
	Q 962	2SB1322/RS/-T	TRANSISTOR		
	Q 963	2SA1037AK/RS/-X	TRANSISTOR		
	Q 964	DTC114EKA-X	TR		
	Q 965	DTC114EKA-X	TR		
	Q 966	DTC114EKA-X	TR		
	Q 967	2SA1037AK/RS/-X	TRANSISTOR		
	Q 978	DTC114EKA-X	TR		
	Q 979	DTA114EKA-X	DIGITAL.TRANSIS		
	R 3	NRSA02J-472X	MG RESISTOR		
	R 4	NRSA02J-473X	MG RESISTOR		
	R 5	NRSA02J-332X	MG RESISTOR		
	R 7	NRSA02J-473X	MG RESISTOR		
	R 8	NRSA02J-472X	MG RESISTOR		
	R 9	NRSA02J-102X	MG RESISTOR		
	R 10	NRSA02J-392X	MG RESISTOR		
	R 12	NRSA02J-102X	MG RESISTOR		
	R 14	NRS181J-330X	MG RESISTOR		
	R 24	NRSA02J-102X	MG RESISTOR		
	R 25	NRSA02J-102X	MG RESISTOR		
	R 26	NRSA02J-103X	MG RESISTOR		
	R 27	NRSA02J-102X	MG RESISTOR		
	R 29	NRSA02J-152X	MG RESISTOR		
	R 30	NRS181J-120X	MG RESISTOR		
	R 32	NRSA02J-0R0X	MG RESISTOR		
	R 34	NRSA02J-223X	MG RESISTOR		
	R 112	NRSA02J-223X	MG RESISTOR		
	R 113	NRSA02J-222X	MG RESISTOR		
	R 115	NRS181J-334X	MG RESISTOR		
	R 116	NRS181J-102X	MG RESISTOR		
	R 132	NRSA02J-222X	MG RESISTOR		
	R 135	NRSA02J-101X	MG RESISTOR		
	R 136	NRSA02J-102X	MG RESISTOR		
	R 141	NRSA02J-153X	MG RESISTOR		
	R 142	NRSA02J-153X	MG RESISTOR		
	R 143	NRSA02J-393X	MG RESISTOR		
	R 144	NRSA02J-393X	MG RESISTOR		
	R 151	NRSA02J-103X	MG RESISTOR		
	R 152	NRSA02J-223X	MG RESISTOR		
	R 153	NRSA02J-472X	MG RESISTOR		
	R 212	NRSA02J-223X	MG RESISTOR		
	R 213	NRSA02J-222X	MG RESISTOR		
	R 215	NRS181J-334X	MG RESISTOR		
	R 216	NRS181J-102X	MG RESISTOR		
	R 232	NRSA02J-222X	MG RESISTOR		
	R 235	NRS181J-101X	MG RESISTOR		
	R 236	NRSA02J-102X	MG RESISTOR		
	R 241	NRSA02J-153X	MG RESISTOR		
	R 242	NRSA02J-153X	MG RESISTOR		
	R 243	NRSA02J-393X	MG RESISTOR		
	R 244	NRSA02J-393X	MG RESISTOR		
	R 245	NRS181J-123X	MG RESISTOR		
	R 246	NRSA02J-153X	MG RESISTOR		
	R 247	NRSA02J-393X	MG RESISTOR		
	R 251	NRSA02J-103X	MG RESISTOR		
	R 252	NRSA02J-223X	MG RESISTOR		
	R 253	NRSA02J-472X	MG RESISTOR		
	R 301	NRSA02J-473X	MG RESISTOR	SQ USE	
	R 302	NRSA02J-473X	MG RESISTOR	SQ USE	
	R 303	NRSA02J-103X	MG RESISTOR	SQ USE	
	R 304	NRSA02J-222X	MG RESISTOR	SQ USE	
	R 305	NRSA02J-153X	MG RESISTOR	SQ USE	
	R 306	NRSA02J-471X	MG RESISTOR	SQ USE	
	R 307	NRSA02J-103X	MG RESISTOR	SQ USE	
	R 308	NRSA02J-473X	MG RESISTOR		

⚠	Item	Parts number	Parts name	Remaks	Area
	R 701	NRSA02J-271X	MG RESISTOR		
	R 702	NRS181J-271X	MG RESISTOR		
	R 703	NRS181J-271X	MG RESISTOR		
	R 704	NRSA02J-271X	MG RESISTOR		
	R 705	NRSA02J-103X	MG RESISTOR		
	R 706	NRSA02J-473X	MG RESISTOR		
	R 707	NRS181J-473X	MG RESISTOR	REMOTE TO GND	
	R 708	NRSA02J-104X	MG RESISTOR		
	R 709	NRS181J-104X	MG RESISTOR		
	R 710	NRS181J-272X	MG RESISTOR		
	R 711	NRSA02J-391X	MG RESISTOR		
	R 712	NRS181J-103X	MG RESISTOR		
	R 713	NRSA02J-103X	MG RESISTOR		
	R 715	NRS181J-103X	MG RESISTOR		
	R 716	NRS181J-103X	MG RESISTOR		
	R 717	NRS181J-103X	MG RESISTOR		
	R 718	NRS181J-472X	MG RESISTOR		
	R 719	NRSA02J-472X	MG RESISTOR		
	R 720	NRSA02J-472X	MG RESISTOR		
	R 721	NRS181J-472X	MG RESISTOR	KS-FX650R	
	R 722	NRSA02J-472X	MG RESISTOR	KS-FX650R	
	R 723	NRS181J-472X	MG RESISTOR	KS-FX650R	
	R 724	NRS181J-472X	MG RESISTOR		
	R 725	NRS181J-472X	MG RESISTOR		
	R 726	NRS181J-472X	MG RESISTOR		
	R 727	NRSA02J-472X	MG RESISTOR		
	R 732	NRS181J-473X	MG RESISTOR		
	R 733	NRSA02J-472X	MG RESISTOR		
	R 734	NRSA02J-472X	MG RESISTOR		
	R 736	NRSA02J-473X	MG RESISTOR		
	R 737	NRSA02J-473X	MG RESISTOR		
	R 738	NRS181J-473X	MG RESISTOR		
	R 739	NRSA02J-473X	MG RESISTOR		
	R 740	NRS181J-473X	MG RESISTOR		
	R 741	NRSA02J-473X	MG RESISTOR		
	R 743	NRSA02J-103X	MG RESISTOR	SQ USE	
	R 746	NRSA02J-473X	MG RESISTOR		
	R 747	NRSA02J-473X	M.G.RESISTOR	KS-F550R	
	R 748	NRSA02J-473X	MG RESISTOR	KS-FX650R	
	R 750	NRSA02J-243X	MG RESISTOR		
	R 751	NRSA02J-473X	M.G.RESISTOR	KS-F550R	
	R 752	NRSA02J-334X	MG RESISTOR		
	R 753	NRSA02J-223X	MG RESISTOR		
	R 754	NRSA02J-101X	MG RESISTOR	KS-FX650R	
	R 755	NRSA02J-103X	MG RESISTOR	KS-FX650R	
	R 756	NRSA02J-104X	MG RESISTOR	KS-FX650R	
	R 757	NRSA02J-104X	MG RESISTOR		
	R 758	NRSA02J-101X	MG RESISTOR	KS-FX650R	
	R 759	NRSA02J-334X	MG RESISTOR	KS-FX650R	
	R 761	NRSA02J-222X	MG RESISTOR		
	R 762	NRSA02J-222X	MG RESISTOR		
	R 763	NRSA02J-222X	MG RESISTOR		
	R 771	NRSA02J-223X	M.G.RESISTOR	KS-F550R	
	R 773	NRSA02J-473X	MG RESISTOR	KS-FX650R	
	R 891	NRSA02J-473X	MG RESISTOR		
	R 892	NRSA02J-102X	MG RESISTOR		
	R 911	NRSA02J-271X	MG RESISTOR		
	R 912	NRSA02J-271X	MG RESISTOR		
	R 913	NRS181J-100X	MG RESISTOR		
	R 941	NRSA02J-473X	MG RESISTOR		
	R 961	QRE141J-470Y	C RESISTOR	47 5% 1/4W	
	R 962	NRSA02J-103X	MG RESISTOR		
	R 963	NRSA02J-472X	MG RESISTOR		
	R 966	NRSA02J-473X	MG RESISTOR		
	R 967	NRSA02J-222X	MG RESISTOR		
	R 969	NRSA02J-222X	MG RESISTOR		
	R 970	NRSA02J-473X	MG RESISTOR		
	R 974	NRS181J-123X	MG RESISTOR		
	R 975	QRE141J-243Y	C RESISTOR	24K 5% 1/4W	
	R 977	NRS181J-471X	MG RESISTOR		
	R 978	NRS181J-682X	MG RESISTOR		
	R 979	NRSA02J-103X	MG RESISTOR		

■Main board Block No. 01

⚠	Item	Parts number	Parts name	Remaks	Area
	R 980	NRSA02J-183X	MG RESISTOR		
	R 981	NRS181J-102X	MG RESISTOR		
	R 982	NRS181J-103X	MG RESISTOR		
	R 983	NRS181J-103X	MG RESISTOR		
	TU 1	QAU0156-001	TUNER	MARKET CLAIM	
	X 701	QAX0406-001Z	CRYSTAL		
	X 761	QAX0263-001Z	CRYSTAL		

■Front board Block No. 02

⚠	Item	Parts number	Parts name	Remaks	Area
	C 651	NCB21HK-103X	C CAPACITOR		
	C 652	NBE20JM-475X	TS E CAPACITOR		
	C 653	NCB21HK-681X	C CAPACITOR		
	CP70	VMC0335-001	CONNECTOR		
	D 601	SML-310LT/MN/-X	LED		
	D 602	LNJ308G81/1-3/X	LED		
	D 603	LNJ308G81/1-3/X	LED		
	D 604	LNJ308G81/1-3/X	LED		
	D 605	LNJ308G81/1-3/X	LED		
	D 606	LNJ308G81/1-3/X	LED		
	D 607	LNJ308G81/1-3/X	LED		
	D 608	LNJ308G81/1-3/X	LED		
	D 609	LNJ308G81/1-3/X	LED		
	D 610	LNJ308G81/1-3/X	LED		
	D 611	LNJ308G81/1-3/X	LED		
	D 612	LNJ308G81/1-3/X	LED		
	D 613	LNJ308G81/1-3/X	LED		
	D 614	LNJ308G81/1-3/X	LED		
	D 615	LNJ308G81/1-3/X	LED		
	D 616	LNJ308G81/1-3/X	LED		
	D 617	LNJ308G81/1-3/X	LED		
	D 618	LNJ308G81/1-3/X	LED		
	D 619	LNJ308G81/1-3/X	LED		
	D 620	LNJ308G81/1-3/X	LED		
	D 621	LNJ308G81/1-3/X	LED		
	D 622	LNJ308G81/1-3/X	LED		
	D 623	LNJ308G81/1-3/X	LED		
	D 624	LNJ308G81/1-3/X	LED		
	D 625	LNJ308G81/1-3/X	LED		
	D 626	LNJ308G81/1-3/X	LED		
	D 627	LNJ308G81/1-3/X	LED		
	D 654	MA152WK-X	SI DIODE		
	IC651	LC75823W	IC		
	JS601	QSW0863-001	JOG SHUTTLE SW		
	PL601	QLL0033-003	LAMP	BLUE CAP	
	PL603	QLL0033-003	LAMP	BLUE CAP	
	R 601	NRSA02J-561X	MG RESISTOR		
	R 602	NRSA02J-821X	MG RESISTOR		
	R 603	NRSA02J-122X	MG RESISTOR		
	R 604	NRSA02J-182X	MG RESISTOR		
	R 605	NRSA02J-272X	MG RESISTOR		
	R 606	NRSA02J-561X	MG RESISTOR		
	R 607	NRSA02J-821X	MG RESISTOR		
	R 608	NRSA02J-122X	MG RESISTOR		
	R 609	NRSA02J-182X	MG RESISTOR		
	R 610	NRSA02J-272X	MG RESISTOR		
	R 611	NRSA02J-392X	MG RESISTOR		
	R 612	NRSA02J-103X	MG RESISTOR		
	R 613	NRSA02J-561X	MG RESISTOR		
	R 614	NRSA02J-821X	MG RESISTOR		
	R 615	NRSA02J-122X	MG RESISTOR		
	R 616	NRSA02J-182X	MG RESISTOR		
	R 617	NRSA02J-272X	MG RESISTOR		
	R 631	NRSA02J-821X	MG RESISTOR		
	R 632	NRSA02J-391X	MG RESISTOR		
	R 634	NRSA02J-221X	MG RESISTOR		
	R 635	NRSA02J-471X	MG RESISTOR		
	R 636	NRSA02J-471X	MG RESISTOR		
	R 637	NRSA02J-471X	MG RESISTOR		
	R 638	NRSA02J-221X	MG RESISTOR		
	R 639	NRSA02J-221X	MG RESISTOR		
	R 640	NRSA02J-471X	MG RESISTOR	FOR KS-FX550	
	R 651	NRSA02J-152X	MG RESISTOR		
	R 652	NRSA02J-473X	MG RESISTOR		
	R 653	NRSA02J-184X	MG RESISTOR		
	R 654	NRSA02J-103X	MG RESISTOR		
	R 655	NRSA02J-103X	MG RESISTOR		
	R 656	NRSA02J-103X	MG RESISTOR		
	R 663	NRSA02J-101X	MG RESISTOR		
	S 601	NSW0066-001X	TACT SWITCH		
	S 602	NSW0066-001X	TACT SWITCH		
	S 603	NSW0066-001X	TACT SWITCH		

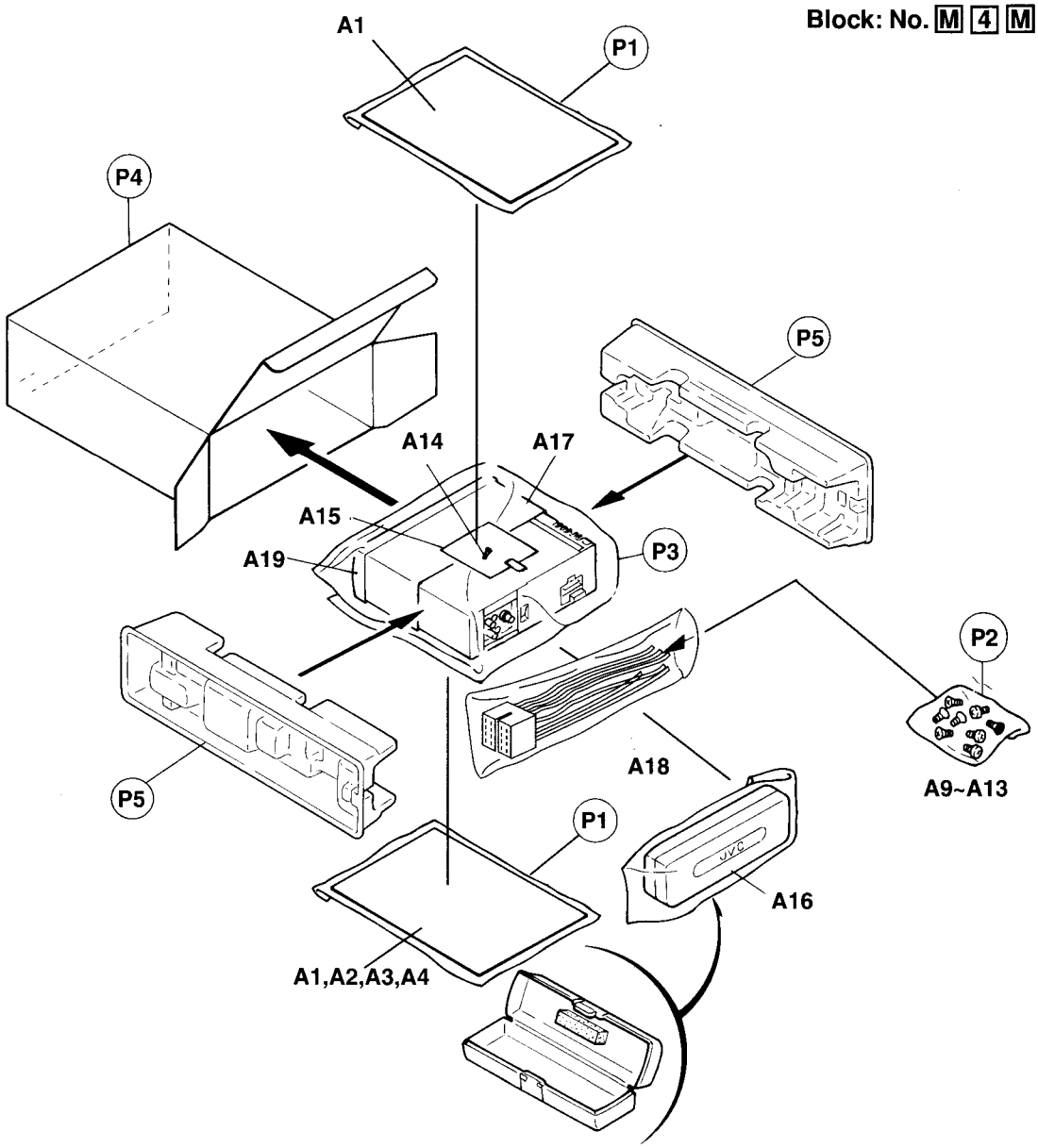
⚠	Item	Parts number	Parts name	Remaks	Area
	S 604	NSW0066-001X	TACT SWITCH		
	S 605	NSW0066-001X	TACT SWITCH		
	S 606	NSW0066-001X	TACT SWITCH		
	S 607	NSW0066-001X	TACT SWITCH		
	S 608	NSW0066-001X	TACT SWITCH		
	S 609	NSW0066-001X	TACT SWITCH		
	S 610	NSW0066-001X	TACT SWITCH		
	S 611	NSW0066-001X	TACT SWITCH		
	S 612	NSW0066-001X	TACT SWITCH		
	S 613	NSW0066-001X	TACT SWITCH		
	S 614	NSW0066-001X	TACT SWITCH		
	S 615	NSW0066-001X	TACT SWITCH		
	S 616	NSW0066-001X	TACT SWITCH		
	S 617	NSW0066-001X	TACT SWITCH		
	S 618	NSW0066-001X	TACT SWITCH		
	S 619	NSW0066-001X	TACT SWITCH		
	S 620	NSW0066-001X	TACT SWITCH		

■Mecha control board Block No. 02

⚠	Item	Parts number	Parts name	Remaks	Area
	C 401	NDC21HJ-101X	C CAPACITOR		
	C 402	NDC21HJ-101X	C CAPACITOR		
	C 403	NDC21HJ-101X	C CAPACITOR		
	C 404	NDC21HJ-101X	C CAPACITOR		
	C 405	NDC21HJ-101X	C CAPACITOR		
	C 406	NDC21HJ-101X	C CAPACITOR		
	C 407	NDC21HJ-101X	C CAPACITOR		
	C 408	NDC21HJ-101X	C CAPACITOR		
	C 409	QERF1CM-226Z	E CAPACITOR	22MF 20% 16V	
	C 410	QFV61HJ-153Z	TF CAPACITOR	.015MF 5% 50V	
	C 411	QFV61HJ-153Z	TF CAPACITOR	.015MF 5% 50V	
	C 412	NCB21EK-104X	C CAPACITOR		
	C 413	NCB21EK-104X	C CAPACITOR		
	C 414	QERF1CM-226Z	E CAPACITOR	22MF 20% 16V	
	C 418	NDC21HJ-221X	C CAPACITOR		
	C 419	QERF1HM-474Z	E CAPACITOR	.47MF 20% 50V	
	C 421	NCB21HK-103X	C CAPACITOR		
	C 422	NCB21EK-104X	C CAPACITOR		
	C 423	QER41CM-106	E CAPACITOR	10MF 20% 16V	
	C 424	NCB21EK-104X	C CAPACITOR		
	C 425	NCB21HK-103X	C CAPACITOR		
	CN40	QGB1214K1-18S	CONNECTOR		
	CN40	VMP3501-001	CONNECTOR		
	CN40	QGF1219F1-10S	CONNECTOR		
	D 401	MA3047/H/-X			
	D 402	DSK10C-T1	DIODE		
	IC401	CXA2559Q	IC		
	IC402	LB1641	IC		
	Q 402	DTC114EKA-X	TR		
	Q 403	2SB1322/RS/-T	TRANSISTOR		
	R 401	NRS181J-391X	MG RESISTOR		
	R 402	NRSA02J-104X	MG RESISTOR		
	R 403	NRSA02J-104X	MG RESISTOR		
	R 404	NRSA02J-104X	MG RESISTOR		
	R 405	NRSA02J-104X	MG RESISTOR		
	R 406	NRSA02J-181X	MG RESISTOR		
	R 407	NRSA02J-181X	MG RESISTOR		
	R 408	NRSA02J-123X	MG RESISTOR		
	R 409	NRSA02J-243X	MG RESISTOR		
	R 410	NRSA02J-243X	MG RESISTOR		
	R 411	NRSA02J-123X	MG RESISTOR		
	R 412	NRSA02J-101X	MG RESISTOR		
	R 413	NRSA02J-183X	MG RESISTOR		
	R 414	NRSA02J-392X	MG RESISTOR		
	R 415	NRSA02J-223X	MG RESISTOR		
	R 416	NRSA02J-914X	MG RESISTOR		
	R 417	NRSA02J-103X	MG RESISTOR		
	R 418	NRSA02J-153X	MG RESISTOR		
	R 422	NRSA02J-332X	MG RESISTOR		
	R 423	NRS181J-473X	MG RESISTOR		
	R 424	NRSA02J-332X	MG RESISTOR		
	R 425	NRS181J-330X	MG RESISTOR		
	R 426	QUY150-050Y	BUS WIRE		

Packing materials and accessories parts list

Block: No. M 3 M M
Block: No. M 4 M M



SCREW KIT 1

A13 Hook

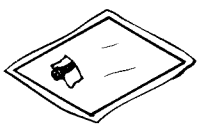
A10 Mount Bolt

A11 Lock Nut

A9 Plug Nut

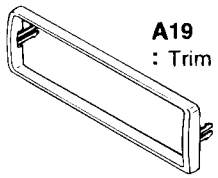
A12 Washer

SCREW KIT 2



A14 Screw

A15 Sheet



A19 : Trim Plate

■Packing parts list

Block No. M3MM

⚠	Item	Parts number	Parts name	Q'ty	Description	Area
	P 1	QPA01703505P	POLY BAG	2	INST.BOOK	
	P 2	QPA00801205	POLY BAG	1		
	P 3	VPE3005-064	POLY BAG	1		
	P 4	FSPE3004-059	CARTON	1	KS-FX650R	
		FSPE3004-080	CARTON	1	KS-F550R	
	P 5	FSPH1018-002	PAPER CUSHION	2	LEFT/RIGHT SIDE	

■Accessories list

Block No. M4MM

⚠	Item	Parts number	Parts name	Q'ty	Description	Area
	A 1	FSUN3109-321	INST.BOOK	1	FIN,ITA,SPA,SWE	
		FSUN3109-311	INST.BOOK	1	ENG,FRE,GER	
	A 2	FSUN3109-T481	INSTALL MANUAL	1	SWE,FIN	
		FSUN3109-T451	INSTALL MANUAL	1	DUT,SPA,ITA	
		FSUN3109-T211	INSTALL MANUAL	1	ENG,FRA,GER	
	A 3	BT-54013-1	WARRANTY CARD	1		
	A 4	LV40978-001A	ISO CAUTION SHEET	1		
	A 9	VKZ4027-202	PLUG NUT	1		
	A 10	VKH4871-001SS	MOUNT BOLT	1		
	A 11	VKZ4328-001	LOCK NUT	1	FOR M5	
	A 12	WNS5000Z	WASHER	1		
	A 13	FSKL4010-002	HOOK	2		
	A 14	VKZ4777-001	MINI SCREW	1	THEFT PREVENTIO	
	A 15	FSYA4001-001	SHEET	1		
	A 16	FSJB3001-30A	HARD CASE	1		
	A 17	FSKM2004-202	MOUNTING SLEEVE	1		
	A 18	QAM0175-001	POWER CODE	1		
	A 19	FSJD2034-001	TRIM PLATE	1		
	KIT 1	KDGS717K-SCREW1	SCREW PARTS KIT	1	A9-A13	
	KIT 2	KDGS727J-SCREW2	SCREW PARTS KIT	1	A14,A15	

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